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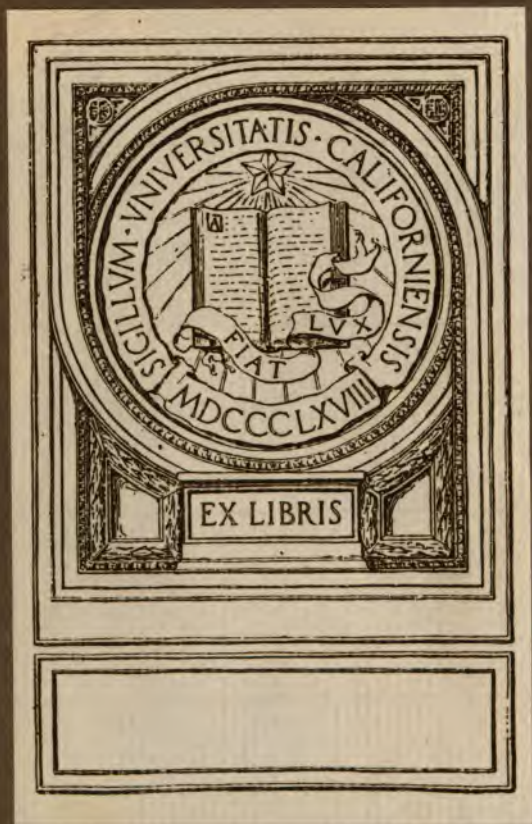
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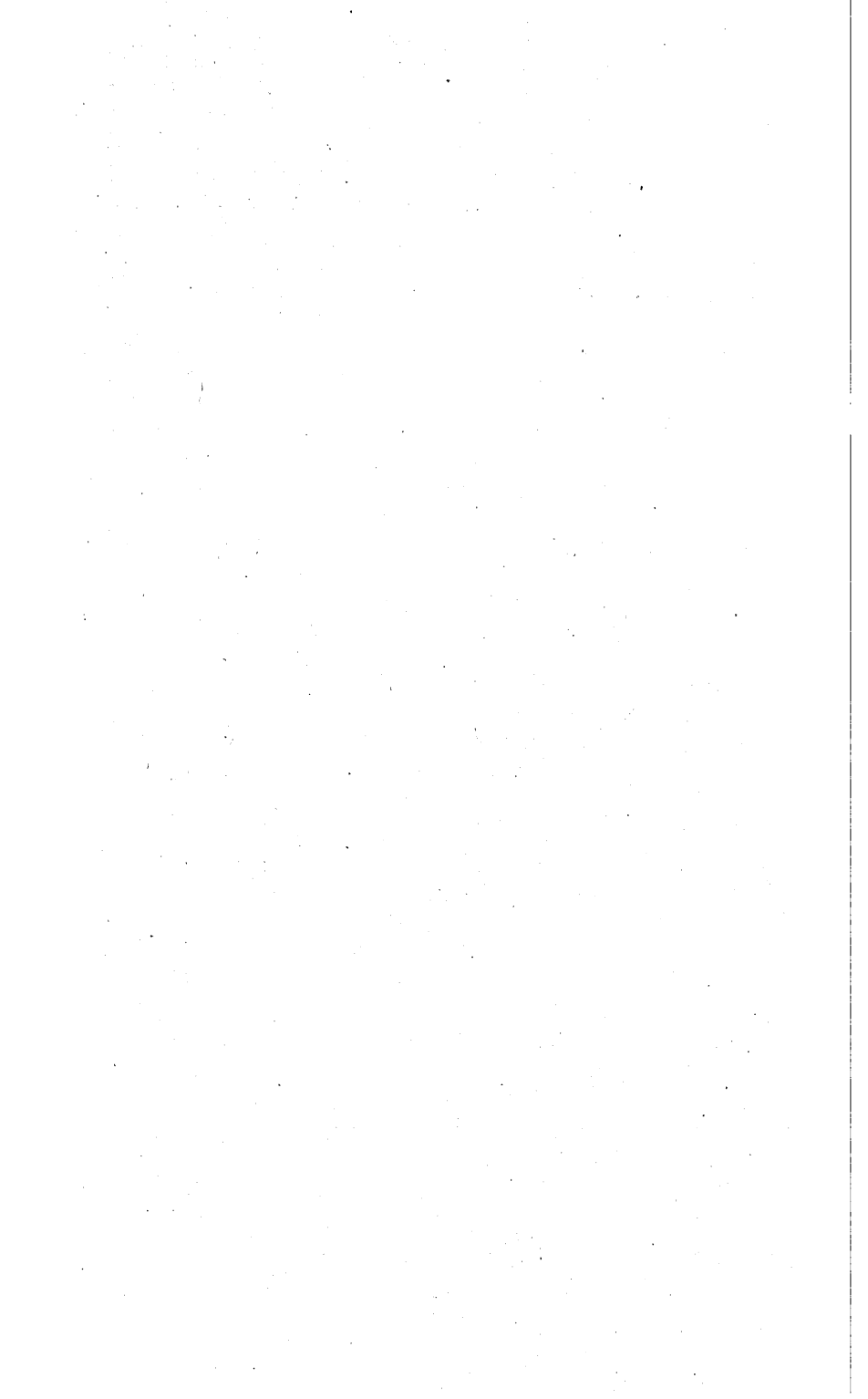
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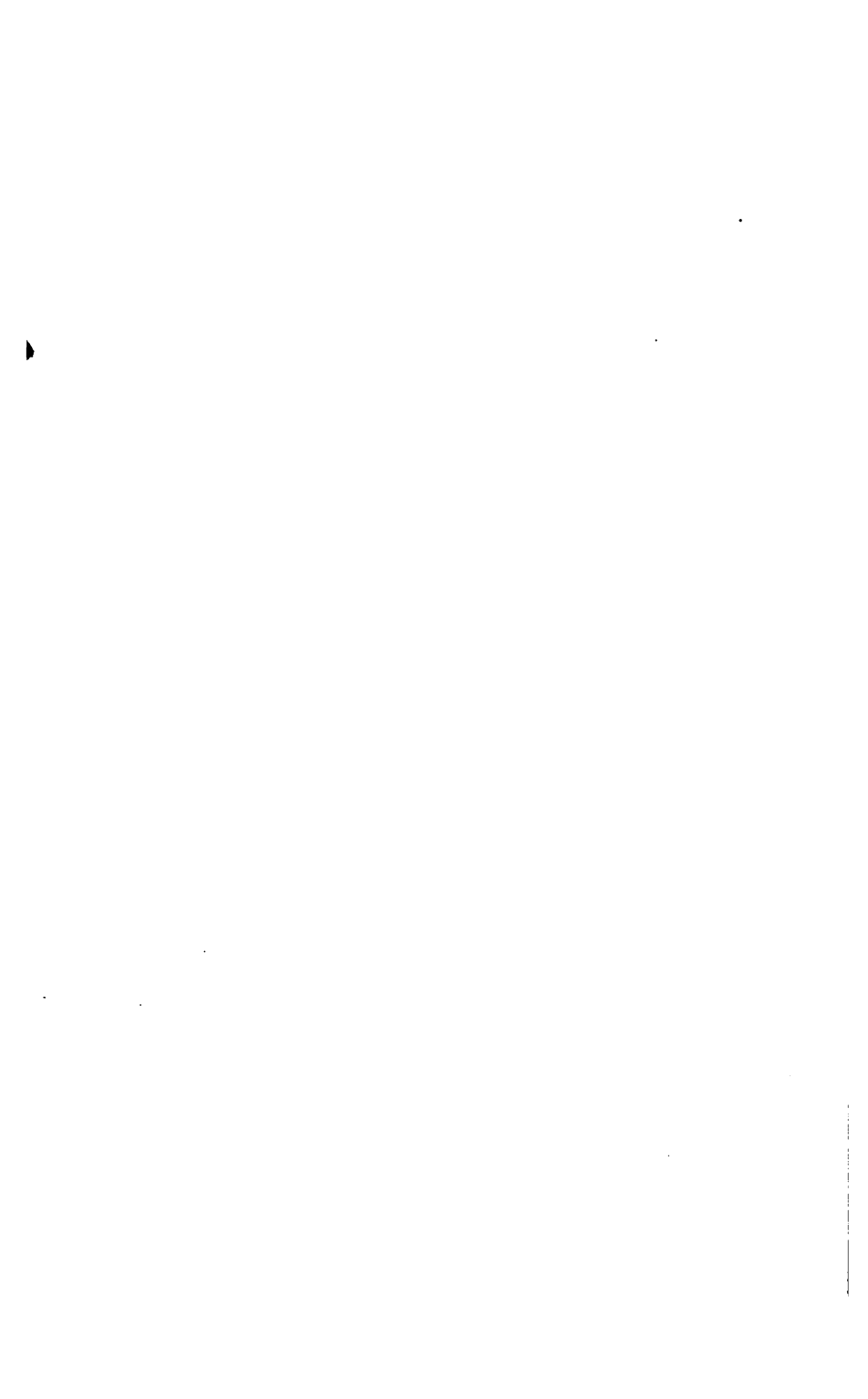




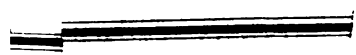
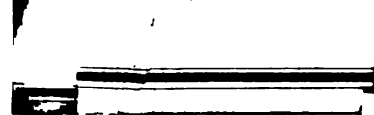


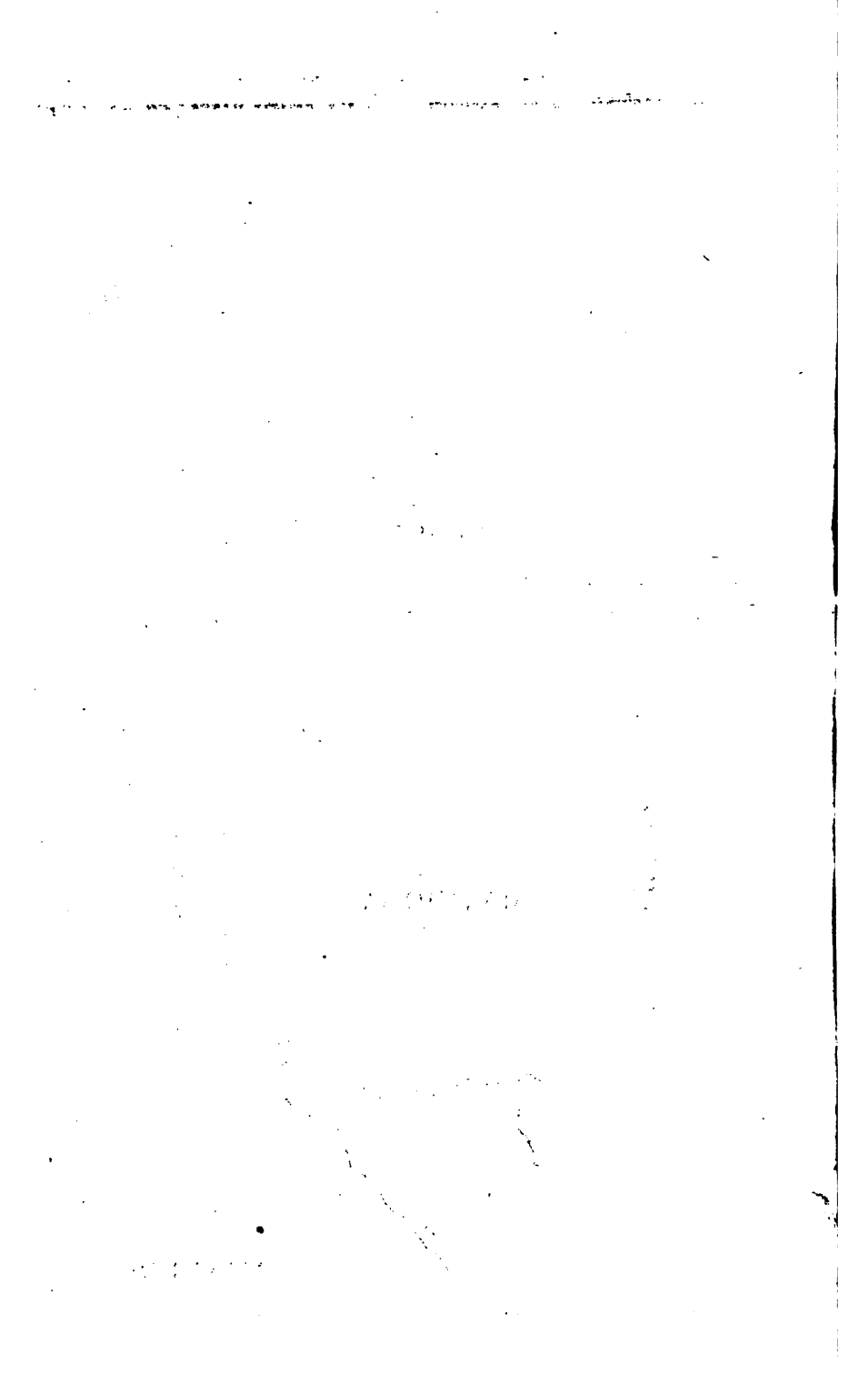














*Peterboro + Port Hope ry. co.*

**Engineer's Report,**

AND

**Statistical Information,**

**RELATIVE TO THE**

**PROPOSED RAILWAY**

**FROM**

**PORT HOPE to PETERBORO.**



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**PORT HOPE, C. W.**

**PRINTED BY WILLIAM FURBY.**

**1847.**

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TO THE  
ATTENTION OF  
THE  
OFFICE OF THE  
SECRETARY OF THE  
NAVY  
WASHINGTON, D.C.

# REPORT

## ON THE

### PETERBORO' & PORT HOPE RAILWAY.

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To the President and Board of Directors of the  
PETERBORO AND PORT HOPE RAILWAY,

GENTLEMEN:

In compliance with the order of the Committee of management, dated the 19th day of May last, no time was lost in proceeding to the ground, the first step, was a *thorough examination* of the face of the country between Port Hope and Peterborough, in nearly a direct course, the distance as measured on the best Maps of the Districts of Newcastle and Colborne, from the Harbour of Port Hope, to the centre of the Town Plot of Peterborough, appears to be 30 miles, and the heights between those extreme points, according to Levels of the Trent and Otonabee Rivers, by previous Government Surveys, about 430 feet.

It would thus appear, that an ascending grade or rise of  $13\frac{1}{2}$  feet per mile, would be adequate to overcome the elevation, having 30 miles for a base line.

But on a more minute investigation of the Country, it was found that a summit ridge intervened on the South of Rice Lake, only  $9\frac{1}{2}$  miles north of the Harbour of Port Hope. The height of the lowest part of this summit was ascertained by leveling, to be 445 feet above Lake Ontario, therefore, to subdivide 445 feet into  $9\frac{1}{2}$  miles, a continued rise of 47 feet per mile would be required, but even this uniform grade cannot be obtained because nearly the height of the summit ridge must be surmounted on the first six miles north from Lake Ontario, this secondary summit is situated at the old Beaver Dam, at the Widow's Inn, where a succession of descending and ascending grades, are required to overcome the main ridge, which would present inadmissible grades and great expense to overcome the intervening ridges.

The great attention of the Reporter, was naturally directed to examine the comparative heights of the respective passes on the *summit ridge*, taking a range of 4 or 5 miles on either side of a direct course between Port Hope and Peterboro; accordingly a line of Levels, and distances was carried as laid down on the general plan, No. 1, and marked with red dotted lines, which shews that the lowest pass is that marked A., being 445 feet above Ontario; on trial either on east or west of this summit, the ground rises in a regular and uniform proportion, upon the east of the south pass at  $3\frac{1}{4}$  miles the rise above Ontario is 507 feet, and six miles on the west, the lowest summit is 640 feet above Ontario, such being the data presented by correct Leveling. The course of Smith's Creek, naturally presented the line required, but on examination it was found to be deficient in some essential points, first, it was crooked, so that the usual curves could not be maintained without crossing and recrossing its Banks by expensive Bridging, &c. 2nd, the banks in most cases were so precipitous that it was objectionable (independent of curves,) because of side cutting, and danger from slides; and farther, after entering into the valley of Smith's Creek, it was found impracticable to leave it until the line reached the level ground north of Dunbar's Mill, and lastly, the difficulty of access to, or egress from, this line, when established.

Not being satisfied with either of the foregoing lines it became necessary to examine if a line on the west of Port Hope Harbour, could not be found, that presented a more favourable surface.

*Accordingly, after various re-examinations*, the line as laid down with red lines on the Plan, No. 1, unites the requirements of moderate length *very easy inclinations, freedom from expensive Works*, either in cutting, embankment, or Bridging, and *with nearly a level surface throughout its whole extent*, so much so (as the section will show) that it would be difficult to find so few obstructions in any plain country, *intersected only by ordinary watercourses*. It will be observed that the line after passing Rice Lake summit, must of necessity proceed through a hill and dale country, all the main ridges of the country passing the line of Railway at right angles, but even in this division the direct course is only deflected in three points, viz: from northern extremity of Black's Swamp, eastward to Centre House, 2nd round Clay's or Horne's Hill, and from Palmer's Corner to the Town of Peterboro, in a more direct course, than by the present Road. All the curves are of large radius, none being less than 880 yards, the larger curves are laid down at 7920 feet radius.

The maximum Gradients upon the line are one foot of rise in 90 feet in length, but even where these inclinations occur, which are seldom, they are short. The aggregate rise and fall is 1092 feet—rise 754—fall 338 feet.

The total distance from Port Hope Harbour, to the centre of the Town of Peterboro, as measured through the Rough Woods, (but laid down on the Section) is 35 miles. The distance measured by the plan is 34 miles 60 chains, from Port Hope Harbour to the centre of Peterboro. It will be observed by the President and Board that the estimates submitted, in detail, embrace for each distinct mile, all the items of Earth work, Drainage, Bridging, Culverts, Fencing and every thing requisite to complete the Road, also, an abstract estimate of the whole, shewing the heads of expenditure, and their proportion to the Total Expense, as here recapitulated, viz :

1st, Earth Work, Bridging, Fencing and Land,	£11,799	12	9
2nd, Superstructure, Timber, Iron and laying do.,	34,380	0	0
3rd, Locomotive Engines, Cars, Stations, Depots,			
Tools and fixtures, required for the first 6 years,	6,490	0	0
4th, Ten per cent. for contingencies,	5,266	19	6

Total Cost to put the Road in working order, £57,936 12 3

all the work has been estimated on a liberal scale, and the prices correspond with work actually being performed in the province at the present time.

In consequence of the small amount of Earth work required, the whole line may be put in operation by 24 months.

On the whole extent of the Line, there has not been found a Single cubic yard of rock *excavation*, or of *hard pan*, which is *more objectionable*, and not one single cubic yard of solid stone masonry, or brick work will be required on the entire extent of the Line, except *at the Depots and Stations*.

All of which is respectfully Submitted.

FRANCIS HALL, C. E.

Port Hope, 28th August, 1847.



**STATISTICAL INFORMATION**  
**RELATIVE TO THE**  
**PROPOSED RAILWAY,**  
**From Port Hope to Peterboro.**

~~285-334~~

The President and Directors of the Peterboro and Port Hope Railway, beg to lay before the Stockholders and the Public, information which has been elicited by the survey of the proposed line, relative to the situation, products, and business of that part of the country between the Towns this Railway is intended to connect.

It is now evident from careful investigation, that the proposed line of Railway, will not only be especially beneficial to the Landowner, Farmer, Merchant, Storekeeper, Tradesman, Mechanic and the travelling community, but that all who do or may hold Shares in the Capital Stock of the Company will find their investment productive of a large return.

The State of the Stock Book may show to those at a distance from this locality the confidence the people of Peterboro and Port Hope have in the undertaking; about £20,000 has been taken up principally by them, being about one third the estimated cost of the line.

The Route as surveyed, and which commends itself to the Board of Directors is the product of careful examination and diligent perseverance in the Engineer, who has studiously observed and attended to the instructions he received "to find the nearest and best line consistent with expense."

It passes through a highly fertile, well cultivated and thickly populated country, in the neighbourhood of valuable Grist and Saw Mills, and Mill Sites, and of Villages which with its aid must rapidly grow into importance.

After taking a course 34 miles westward from the harbour of Port Hope, it is carried northward through the Township of Hope, till it attains the 8th Concession line, thence eastward to the village of Bewdly at the head of Rice Lake where has lately been erected a Steam Saw Mill capable of cutting 12,000 feet of lumber daily, 2 taverns, several dwelling houses, blacksmith's shop &c. there is also a wharf & store-houses at which the Steamer Forester touches. Timber of every description and in every character may be brought up Rice Lake to this point by rafts at a small cost and by the proposed railway the great difficulty and expense of transporting it to Lake Ontario will be removed.

FROM BEWDLEY, it is proposed (to avoid the high hills north of Black's Swamp,) to carry the Railway through a part of the Township of Monaghan, and again to join the Peterboro' Road at the commencement of a village called Centreville.

The high road from Millbrook in Cavan, to the Peterboro and Port Hope road leads to this place, from which it is distant only four miles, this must eventually become an excellent business situation and probably a Station. The produce of the Township of Cavan, Emily Ops, Manvers and South Monaghan, could be collected here, and when the Railway is completed would find transport by it to Port Hope, both on account of the great saving of time and expense.

THE PRODUCE of these Townships that would in all probability find transport by the Railway at this time, were it completed is as follows, upon which a cost of £12,541 19s. 2d. is incurred by the present means of carriage.

### TABLE OF INTERMEDIATE TRAFFIC

That would now find transport by Railway  
at the present Tariff of freight.

Township of	Wheat at 4d per bush	Other Grain at 4d a bus	Pork at 1s 3 per barrel	Grass Seed at 4d a bus	Butter at 15s per ton.	
CAVAN	65,000	10,000	700	200	20	
EMILY	20,000	6,000	300	50	7	
OPS	7,000	2,000	80		7	
MANVERS	5,000	2,000	50		2	
S. MONAGHAN	12,000	4,000	200	60	5	
					41	£30 15 0
				310		5 3 4
			1330			83 2 6
		24,000				400 0040
	109,000					1816 13464

8,000 Barrels of flour from 3 flouring Mills at 7½d per bl	250 0 0
5 Passengers daily, each way, 310 days per year, at 3s 9d each,	581 5 0
75,000 feet of lumber daily from 16 Saw Mills, being the amount they are capable of cutting, at 19s per thousand, 250 days per year,	9375 0 0
	£12,541 19 2

THE MARMORA IRON WORKS, are situated in the Township of Marmora about 7 miles from the eastern end of Rice Lake.

We understand that these works are about to be put into full operation by parties who have ample means and ability to carry them on. The Iron is of the first quality and most abundant. In this neighborhood is also found Red Ochre, excellent Lithographic Stone and Marble.

From Centreville the line takes the course of the Peterboro' road and may be made upon it for six miles, until it reaches Palmer's Inn, which is also a good situation for the collection of traffic for the Railway. This place according to the present travelled road is 7 miles distant from Peterboro', but a considerable saving of distance, will be effected by the line passing about N. E. to Peterboro.

PETERBORO', the County Town of the Colborne District, containing a population of about 3000 inhabitants, possesses natural advantages, equal perhaps, to any locality in Canada, and needs only the cheap and ready means of transport which a Railway will afford, to make it rise in importance both in size and wealth.

Its situation is beautiful, and is most advantageous for business, being built on the River Otonabee, and has never failed to call forth the admiration of its visitors,—but that which most astonishes the traveller is its almost boundless water power: a fall of 160 feet is found between Buckhorn Lake, and the Bridge of Peterboro. The Mill privileges found within a short distance can scarcely be estimated. The regular quantity of water passing per minute, is equal to 86,400 Cubic feet, or, 691,200 Gallons. This is nearly the minimum quantity for this River at Peterboro, throughout the year.

Two excellent Flouring Mills, each furnished with four run of stones, are now in operation, which are found to be quite inadequate for the Manufactory of Flour, two more are about to be erected by Z. Burnham, and E. Perry, Esquires: and within a short distance of the Town there are several others.

Saw Mills to the number of 13 send their Lumber to this Town, these mills are capable of cutting 60,000 feet of lumber in 24 hours, but some of them for want of a good market are comparatively idle; 20s, per 1000 feet has lately been paid for carriage of Lumber to Lake Ontario, a distance of 30 miles, which almost prohibits its transportation.

The supply of timber for Saw Mills can scarcely be calculated, as it can be easily Rafted from a distance of upwards of 100 miles, by means of the chain of Lakes lying to the northward.

STONE suitable for building purposes is also abundant, one kind found in this neighbourhood, is capable of bearing a high polish.

By Railway the frontier Towns could be supplied with this material at a much lower price than is now paid, viz: £1 17s 6d. per Toise. Lime also, at 5d, per bushel, can be obtained here, whereas 10d per bushel is commonly paid at the Front,

There are 3 Foundries, in this Town capable of making the heaviest mill castings, There are 2 Cloth Factories, one intended for 28 Looms; machine and Axe Factories; a Mill for sawing Lath; a Turning and Furniture Factory &c.

There is nothing remarkable in the existance of such establishments in a North American Town; but when we know the disadvantages under which the Inhabitants of Peterboro labour, paying for freight upon their imports, 30s, per ton from Lake Ontario, we see in this beginning of machinery and business, and in the enterprise which they have awakened to, together with the advantages of the beautiful River Otonabee, the assurance of a good maintenance of the Railway.

The exports and imports of this Town have been carefully collected and it is believed are faithfully detailed, together with the present charges for freight &c.

**TABLE of the Exports and Imports of  
the Town of Peterboro, together  
with the present Tariff of  
Freight, &c., on**

110,000 Bushels of Wheat	at 5d	-	-	£2291	13	4
1,050 do. Peas,	5d	-	-	21	17	6
680 do. Grass Seed	at 5d	-	-	14	3	4
21,000 Barrels of Flour	at 1s 6d	-	-	1575	0	0
3000 do. Salt	at 2s 6d	-	-	375	0	0
600 do. Plaster	at 2s 6d	-	-	75	0	0
100 do. Ashes	at 5s	-	-	25	0	0
50 do. Pork	at 2s	-	-	5	0	0
540 do. Meal	at 1s 6d	-	-	40	10	0
1,024 Tons Merchandise	at 30s	-	-	1536	0	0
36 do. Butter	at 20s	-	-	36	0	0
37 do. Leather, Beer, Fur &c.	at 20s	-	-	37	0	0
20 Passengers daily, 310 days in the year, at 7s 6d each,				2325	0	0
Carriage of Mail,		-	-	400	0	0
				£8757	4	2
60000 feet of Lumber daily, from 14 Mills, 19 Saws, 250 days in the year, at 20s per M.				15000	0	0
				£23757	4	2

Thus we see that a sum amounting to £8757 4s 2d, is now paid annually if we add to this £15,000, for the Lumber the mills now in operation *can* cut, and which would be certainly exported, had their owners the means of doing so at a reasonable rate, the present amount of business would cost £23757 4s 2d. This alone would be sufficient to satisfy the Directors to prosecute the undertaking of the Railway, but if they are to be guided by the result of Railways in the United States, the saving of time and expense has generally at once tripled the number of passengers, and greatly increased business and industry. Several individuals are now prepared to put up additional Mills as soon as the Railway is commenced.

NEW TRAFFIC such as Stone, Spars, Squared Timber, Staves, Cordwood, Bark. Lime, Shingles, Turned Ware, &c., would find a ready market, and the Journey which now occupies from 8 to 10 hours could be performed in two.

Another encouragement must not be passed over. It appears that the course of the proposed Railway for several miles west of Port Hope, is that which must be taken by the Kingston and Wolfe Island Railway whenever it is made, and of the speedy commencement of this desirable undertaking, there seems now but little doubt with the encouraging attention the British Government are giving to the making of a great trunk Railway through the British North American Provinces.

The President and Directors consider themselves justified in anticipating a trade in the items specified to the amount of £24199 8s 10½d at a reduction of ¼ the present charges. To this may safely be added £5,000, at least for new traffic, which without any allowance for increase of business amounts to £29,199 8s 10½d. Yet they have every reason to expect that there will be an immense and immediate increase to every present branch of business.

The proposed Railway will afford an uninterrupted trade at all seasons of the year, and enable the Merchants and Storekeepers of Peterboro' to keep their stock replenished and have a continual variety of Goods.

The Railway united with the boundless water power of the Otonabee, for Mills, and the great variety and quantity of timber in the Colborne District must suggest to the minds of thinking, calculating men, the great advantages held out for ship building at Port Hope.

As a natural Harbour it is acknowledged by the most respectable and talented Captains, navigating Lake Ontario, not to have its equal between Toronto and Kingston. Its capabilities as a harbour of re-



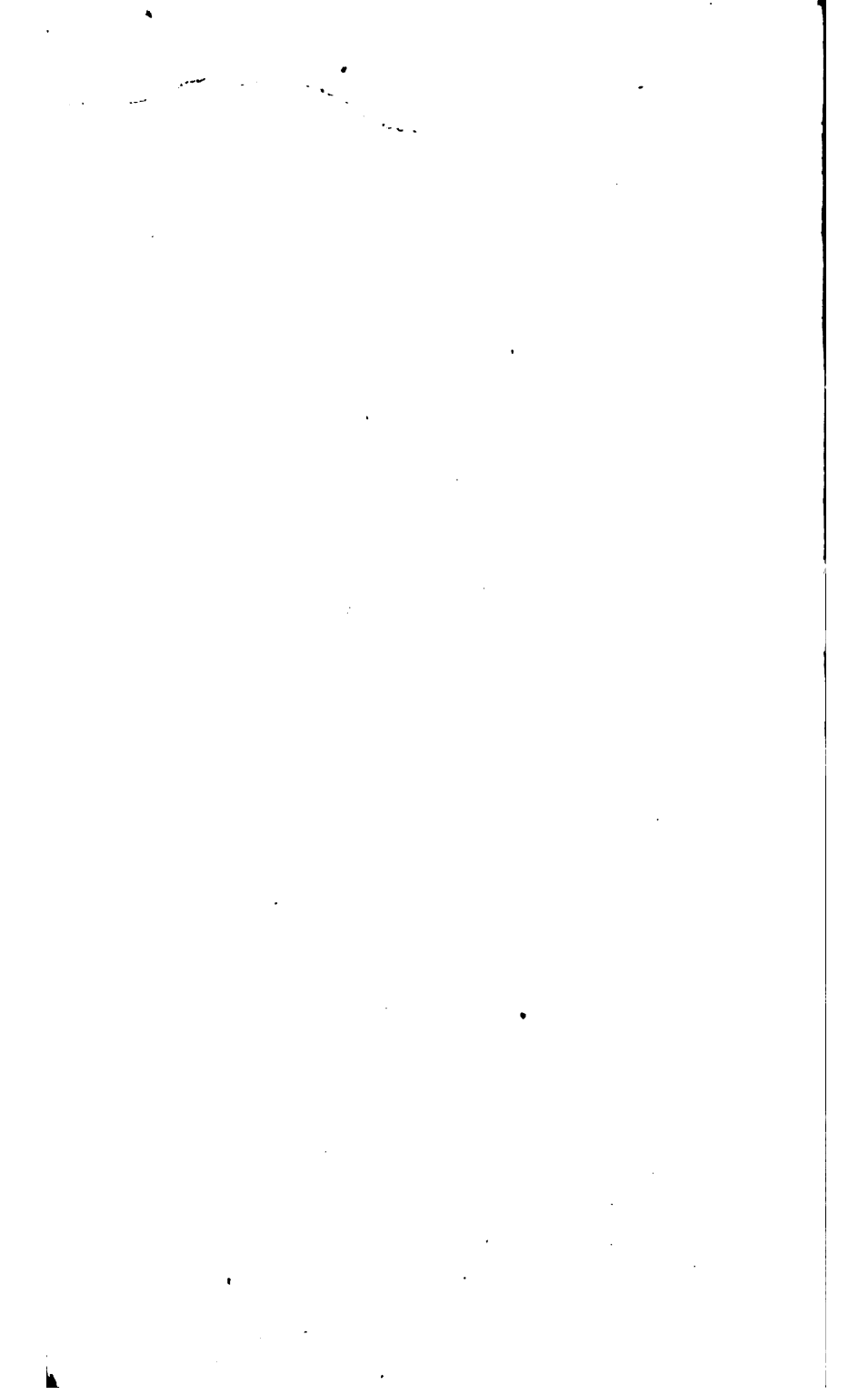
fuge have been highly commended to the British and Colonial Governments, and *it may be added*, its desirable advantages for the construction of building Docks.

It is proposed to allow interest upon all instalments on Stock, from the date of Payment, as in all those cases where this has been done in England, the works have advanced to completion, at least one or two years beyond those lines that have not done so, and from the quick return of a large percentage, after the road is completed, the pre-payment of Interest is reduced to almost nothing to the shareholders, besides the inducement that is held out to money holders, possessing moderate means, of immediate investment, and return for the same.

The profitableness of such an investment must be most apparent to a discerning public, by comparing the Engineer's estimates of the cost of the proposed Railway, with the confidently anticipated return. Contractors are already proposing to complete and furnish it at these estimates.

DAVID SMART,  
*President.*

Port Hope, September 6, 1847.



*Thos. E. Norman*

## THE ORIGIN, COMPOSITION, AND FUTURITY OF POLITICAL PARTIES IN CANADA.

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In order to give a correct idea of the relative position of political parties in Canada, it is necessary to take a retrospect and briefly to trace the history of events from a somewhat remote period.

Lower Canada, in consequence of the events of 1837 and 1838, had lost the constitution which it had enjoyed since 1791, and the Imperial Government had substituted in it, an organization designated a "Special Council," an anomalous and exceptional state of things which could only be transitory. In 1840 the Parliament of the Empire voted the new Constitutional Act, which re-united, under one Government, the two Provinces of Upper and Lower Canada, separated since 1791. England, in a political point of view, was wrong in acceding to this first separation of the Provinces, since it tended to foster, on American soil, the development of institutions of excessive mobility and which might be engrafted on any nationality and thrive there. One element alone is sufficient, under every zone, to favor their growth, that element is—Interest. England had been wrong in permitting the simultaneous development of two separate nationalities, arrayed, as it were, against each other—of two societies, essentially differing the one from the other in their institutions, their laws, their manners, their instincts, and their prejudices; and she was again wrong, and far more so, in 1840, when, in order to crush one nationality, the only real and enduring foundation to her power in the new world, she re-united into one the two Pro-

vinces which had grown fifty years older in the possession of those opposite institutions, laws, manners, instincts, and prejudices. Adopting the counsels of a perfidious man, who deceived himself in his cruel calculations, she sought to attain her end by violent measures and by extermination, whilst she might infallibly have found what she sought in good government; and whilst justice alone ought to have been the basis of her domination on the broad and free shores of the St. Lawrence.

The Act of 1841, by its odious division of electoral districts, gave a preponderance to the English race, and placed the Franco-Canadians, with all their political, social, and religious institutions, in a condition of political dependance upon it. The population of Lower Canada was by one-third larger than that of Upper Canada, and yet the latter had the same number of voices in the Elective Chamber. English boroughs were favoured, and valueless localities containing scarcely a few hundred souls, could elect representatives, whilst Electoral Districts, having a population of forty thousand souls, were entitled to elect but one. The injustice did not stop here. Constitutional tyranny had so far been perpetrated; it now remained to complete the measure, that unconstitutional tyranny should be exercised. Lord Sydenham, altered, by proclamation, the limits of the cities of Quebec and Montreal, fixed from time immemorial, by the proclamation of another governor, Sir Alured Clarke, and excluded from them the almost totality of the French population

that could, indubitably, have given the victory to the liberal party, and thus have convinced England, that that party was supported and upheld, at the great centres of information, commerce and influence. In other localities, such as the two Counties of Terrebonne and Montreal, Lord Sydenham triumphed through brute force, and by shedding the blood of peaceable citizens. In the legislative session of 1841, which was the first under the new Constitution, the Governor General not only had a majority, but, out of eighty-four members, composing the Legislative Assembly, only twenty-one were franco-Canadians, two of whom were partisans of the constitutional despot. The franco-Canadians were not, however, despondent, and, after solemnly protesting upon the records of the House against the partiality and injustice of the Constitution, they, like wise men, resolved on taking a part in public affairs, and await the supervening of better days. To stand aloof from the Constitution would have been suicidal, they, therefore, did no such thing, and time has shown that they were right.

Lord Sydenham's majority was composed of the English Tories of Lower Canada, and of men designated as the Liberals of Upper Canada. These were favorable to the Union, and hence the Governor General, by means of corruption and violence, had them elected in the very strong-holds of toriyism, such as Toronto and Kingston. The Upper Canada Tories, heretofore the supreme rulers, were adverse to the Union, because it deprived them of the Government; and the Tories of Lower Canada were favorable to it, because it preserved their power, and, particularly, because it was to consummate the total ruin of franco-Canadian nationality and influence. Lord Sydenham obtained his Parliamentary majority especially by offering, in the way of ameliorations, thirty-six millions of francs to the covetousness of the fluctuating population of Upper Canada, which is incessantly recruiting and renewing itself by immigration. A few distinguished liberals preserved their public integrity amidst so much corruption, and the names of a Baldwin, a Price, a Durand, will be handed down, honoured and respected, in history. But in the middle of his triumphs, Mr. Poulett Thompson (afterwards Lord Sydenham) felt that his incongruous majority was wanting in those elements of cohesion that might warrant its enduring, for any length of time.—

Hence did he endeavour, more than once, to draw over to his side Mr. LaFontaine and with that gentleman, the franco-Canadians. Unable to do this, he attempted, but in vain, to compromise Mr. LaFontaine in the eyes of his party.

This majority, composed of elements so strange and repugnant, and having no other affinity amongst themselves than hatred of a common object and covetousness, was about breaking up when Lord Sydenham descended to his grave. His successor at once understood that he could not govern without the concurrence of the franco-Canadians, whose union, independence, disinterestedness, and elevation of sentiments, were neither unknown nor unadmired. Overtures were several times made to Mr. LaFontaine to obtain that concurrence, and after four times coming to the charge, new concessions being made on each occasion, Mr. LaFontaine now, for the second time, leader of the Administration, and Mr. Morin, the Speaker of the Elective branch of the Legislature, accepted office with Mr. Baldwin, the present Attorney General for Upper Canada.— This occurred during the first few days of the Session of 1842, and the Parliament was prorogued to give the new ministry time to prepare their measures. But Sir Charles Bagot died before the then next meeting of the Legislature, and Sir Charles Metcalfe came out as his successor.

Sir Charles Metcalfe, for a long time accustomed to despotic Government, and submitting very distastefully to the suggestions of a responsible ministry, whilst he, moreover lent an ear to the advice of irresponsible persons and intriguing men, such as Messrs. Wakefield and Higginson, made certain important appointments without consulting his responsible advisers, who were directly accountable to the people for those appointments. The Ministers protested and retired. Their conduct was approved of by nearly three-fourths of the Elective Chamber, which declared that the right of consultation was as much an attribute of the Ministry in Canada as of the Ministry in England. Sir Charles Metcalfe, who was rewarded for this autocratic conduct by a Peerage, appealed to the people of Canada. The elections were more of a personal than of a political character, if we may so speak, for at the very time that the recent peer was loudly protesting, through the press, against any design on his part to impair the consti-

tution, and that he charged the Ministry with having sought to make a political tool of him, he lavished his treasure with a profuse hand upon all our benevolent institutions and upon all enterprises of public utility. He was, however, affected by a destroying malady that was soon to terminate his existence. He died of a cancer in the face, that inflicted upon him most acute sufferings, which he bore with a silent courage and a calmness of resignation beyond all praise. All these circumstances conspired to draw to him the sympathies of all those who believed in the sincerity of his protestations, and in his avowed respect for Ministerial Responsibility, and who did not understand and foresee that upon the result of the then contest depended the perpetuation of the old despotism, or the establishment, for ever, of constitutional government in its plenitude. The Tories of Upper Canada, who had protested with all their might against popular government, ranged themselves, with ironical joy, around this other Charles II., and they carried an electoral triumph because they were the only compact element of Lord Metcalfe's party. The returning officers had been artfully chosen, and by means of several dishonest decisions, they gave a majority of two or three votes to the Governor General. Almost the whole of Upper Canada ranged itself under his banner, whilst Lower Canada almost wholly took possession of the Opposition benches.—The Opposition was formidable, both in point of numbers and of talent, whilst the Ministry was composed of men, either new in public life or of patent incapacity. The former, had they willed it, might literally have arrested the march of Legislation and of Government. They, however, willed it not, and preferred a contest, more rational and more patriotic, which ultimately prevailed throughout the country. The Tories, during the three years that they were in power, attempted several times, but unsuccessfully, by their inexperience, to gain over the French Canadians; they prostrated the public credit; threw the country into inextricable financial embarrassment, and led it to the very verge of bankruptcy. They lost themselves through their impotency and corruption; and the General Elections of 1847 and 48 gave a brilliant victory to the liberal party, and recalled to power the principal elements of the Ministry of 1842 and 1843.

The change of Administration took place at the commencement of the session of 1848, after a vote of the Elective Chamber, which placed the Tories in a humiliating minority. The new Administration prorogued Parliament in order to prepare their measures. This overthrow of one party and elevation of another, took place without commotion. The adversaries of the new administration confessed that it was composed of the strongest and most homogenous elements that could be found in the Country, and it may be said, that if they did not like the Cabinet, they had at least confidence in its integrity, its ability, and experience. Peace reigned throughout Canada, and the new Government laboured with all its energies to extricate the Country from the financial embarrassment into which it had been plunged through the unskillfulness of the preceeding Administration.

Never had the Tories, as yet, found themselves so fractioned as a party; for scarcely could they, when mustering all their forces, command eighteen votes in the representative branch, and, unhappily for them, they had no bond of Union to keep them together. A leader was wanting who, by his superiority, might silence petty jealousies and group his party around him, himself pre-eminent in their midst. Sir A. McNab seemed disposed to take the command; but hardly more than two or three consented to accept as their leader a man who, at best, but understood some of the minor Parliamentary tactics. Some of the members of the late administration separately manifested the same desire by their disdainful and negative silence.—In this morbid state of existence they awaited the session of 1849, which was the most stormy and the longest since the Session of 1792.

At the commencement of the Session the Tories, numerically null and deficient in cohesion, were bemoaning their impotency, when all at once they thought they had discovered the way to power.—It will be readily understood that we allude to the Rebellion Losses Bill.—The Tory press multiplied falsehoods in relation to that measure, and the Electric Telegraph carried them to the extremities of the Province with the rapidity of lightning. The agitation became extreme in Upper Canada, and in the English districts of Lower Canada. The Opposition knew that they could succeed best by kindling a war of races, and hence, in both

houses of Parliament, through the press, at public meetings, everywhere, they raised the hue and cry that the Governor General was rewarding French rebels, and, therefore, punishing the Anglo-Saxons for their loyalty and devotion to the empire. They moved that the hateful bill would not pass, and made prodigious efforts completely to stop the progress of Legislation. The House of Assembly sat without adjournment for twenty successive hours. Clubs were busy without, plotting in the dark, and threatening vengeance. The bill was sanctioned on the 25th of April.—A shriek of angry passion burst forth. Lord Elgin, who had but consulted his position and obeyed his duty as a constitutional Governor, was insulted in leaving the Parliament buildings; eggs and stones were thrown at him. On the night of that day a meeting was held on the Champ de Mars, and the multitude of gentlemen rioters and of bankrupt merchants moved towards the Parliament buildings which soon after exhibited but one immense conflagration. The hideous light was reflected over the whole vault of the Canadian sky, and the shouts, no less hideous, of the barbarian rioters were re-echoed on the extreme shores of the St. Lawrence and in the depths of the forest—they there inspired indescribable horror: a reaction took place which brought about strong manifestations favourable to the Governor-General and to his administration. The latter crowning the work by their prudence and their moderation, smothered this civil war—this war of races which threatened to be thus enkindled.

From this epoch may probably be dated the dissolution of the Tory party, which by its conduct lost the most respectable and most incorruptible of its members, Mr. Wilson of London. Upper Canada had discovered that the Tories had thus endangered the Constitution and shaken the foundation of society, but with a view of regaining that power which they had possessed and tyrannically exercised during fifty years.

The party thus vanquished and broken up by its own excesses, did not however wholly despair; they formed a political association called "The League" composed of a certain number of delegates from different parts of the Province. "The League" held its sittings at Kingston during the summer of 1849; but as it was without unity and had no definite object, it soon dwindled into a vague existence and noiselessly dissolved. It was

to have resumed its sittings at Toronto on the very day upon which the Parliament should meet, but the League had expired; and since then a gloomy silence has reigned over its grave.

The League had scarcely existed when the merchants of Montreal, ruined for the most part by the rash speculations of 1847 and 1848 and by the excesses of 1849, published a document since called the *Annexation Manifesto*, in which they besought their Sovereign to grant them the liberty of annexing Canada to the United States that it might form part of the Federal Republic in order, they said, to escape from "ruin and decay;" some other persons without due reflection signed the document with them. This measure, as insolent as it was insensate, was of a nature gravely to affect the public credit, if not counteracted or silently condemned throughout the country. The election of the County of Sherbrooke (which, it must be observed, is contiguous to the United States, and is in a great measure peopled by Americans) was carried on the Annexationist ticket; but the victory, in that large County, was obtained by a feeble majority of thirty-six votes.—For the causes we have already stated, the result of this election passed almost unnoticed and led to no consequences.

The annexationists knew one thing; they knew that if they could once carry any of those great centres of commerce and of instruction which, from their influence, usually give the political impulsion, they would have a fair chance of disorganizing the whole country; and hence they pounced with avidity upon the City of Quebec. Mr. Chabot had accepted office with a seat in the Cabinet, and was about presenting himself for re-election; they availed themselves of the occasion to try their strength. In this election not only was the struggle between the Ministry and their political adversaries, between the constitution, allegiance, and annexation; but moreover between socialism and the conservative principle; and the annexationist orators proclaimed the doctrines of Fourier at their public meetings and clubs. The Tories voted with the annexationists, demanding at the same time that their protest against annexation be inserted on the poll-books. After upwards of thirty days of electoral caballing, and public meetings held almost without intermission by the anti-ministerialists, the constitutional

candidate, himself a minister of the Crown in the Province, was elected by a majority of 804 votes. This was overwhelming, and what was still more so, was the fact that the immense majority of the French Canadians whom they had hoped so easily to draw into the movement, voted against Annexation. The blow was decisive and annexation was extinguished.

But whilst the annexationists proclaimed from the house-tops the "ruin and decay" of Colonial Canada, Upper Canada gave them an emphatic denial by her unexampled prosperity and the growing activity of her commerce. Lower Canada herself was prudently emerging from that commercial crisis which had swept like a hurricane over the industry of nations, and her Customs-Revenue unequivocally gave the lie to the statements of disaffected alarmists. By and by the merchants became so engaged in their counting-houses, with sales, canals, rail-roads, and a thousand other useful speculations, that they no longer thought of annexation, prosperity having overtaken them so completely without its intervention.

We now come to the last phasis of our political history; we allude to *clear-gritism*. To it, no solution has yet been arrived at; and it is very difficult to foretell what will be the fate of this new political sect, which is the more dangerous from its keeping within the scope of the constitution, and its ostensible object being to urge economy in all the departments of the public service. A cause, very simple in appearance and very discreditable, has given birth to this new political creed, which has for it, as all new religions have, the tenet of proselytism, and which preaches its doctrines, naturally popular, however absurd, even under the roof of the log-cabins. *Clear-gritism* is an Upper Canada plant, which demagogues have sought in vain to implant in the political soil of Lower Canada.

Dr. Park, an Upper Canadian physician, had been appointed by Government as Physician to the Toronto Lunatic Asylum. He soon after quarrelled with the Commissioners of the establishment upon a question of predominance. Those Commissioners belonged to the Tory party; Dr. Park on the other hand was a Liberal. The difficulty was submitted to the Government, and as it appeared to it but just that Dr. Park should submit to the subordination inherent in the office he held, he was requested to do so—the Government

found him inflexible and was obliged to dismiss him.

Dr. Park is the brother-in-law of Dr. Rolph, an eloquent man, who formerly took an important part in the politics of Upper Canada and in the events of 1837 and 1838. The *Toronto Examiner*, a weekly newspaper, now the most strenuous organ and advanced sentinel of *clear-gritism*, was heard in low murmurs to blame this dismissal as a sacrifice to the enemy; and these low murmurs it was confidently asserted, proceeded from Dr. Rolph. The *Examiner* lent an ear to them with indescribable joy, because it saw with mortification and wounded self-love that the *Globe* wore the aspect of a semi-official organ, and was the medium through which were sometimes reflected the views of the Government. It however, for a time ground its teeth in silence, watching the occurrence of some favorable opportunity, well knowing, that it might at all times rally round its discontented standard the disappointed men of all parties and the decayed and forsaken leaders of the old school of Radicalism. These complained that the oldest and most faithful patriots had been neglected to promote and reward new men and sometimes to purchase an enemy; whilst the others, on their side, cried aloud that the Government rewarded with places and honors the rebels of 1837 and 1838 and thus insulted the loyalty which, at that epoch, fought for the British Flag. It must be observed that the dismissal of Dr. Park took place at the end of 1848 or beginning of 1849, long before the burning of the Parliament Buildings; this spark remained thus incandescent beneath the ashes, until the moment of Mr. Malcolm Cameron's resignation, which took place in the winter of 1849-50, and which was the signal for division and strife in the ministerial party.

The Hon. L. M. Viger having resigned the office of Receiver-General and his seat in the Cabinet, because he disapproved of the removal of the Seat of Government to Toronto. Mr. E. P. Tache, Chief Commissioner of Public Works, was appointed in his stead, and the situation of Chief Commissioner was offered to Mr. Cameron, then Assistant Commissioner of Public Works, but he declined the offer, as he sought to be appointed Commissioner of Crown Lands. Mr. Price, the head of this Department, had publicly announced his intention of retiring from public life, and had thus awakened with all its

energy the affection of the Assistant Commissioner of Public Works for the office which it appeared would thus become vacant. Mr. Cameron, disappointed in the hope so entertained, petulantly left the Administration and threw himself unreservedly into the arms of the *Examiner* which warmly defended the convert, the sacrificed, the economist—for the ex-minister publicly avowed a diversity of motives for his resignation. In the first place his colleagues had shamefully used him by their slight; then, they had, without consulting him, made an important nomination to a ministerial office; and lastly he had forsaken them because he had endeavored to introduce economy into the Government and that those endeavours had been repelled. It is from this moment that the discontented were designated by the name of *Clear Grits*, a name in which they much gloried, although it seems in vain to seek for its just signification or rational application. The term was applied to them by an anonymous writer who ironically compared them to the fine grained burr-stone of a mill which rejects all as chaff that is not of the finest flour.

Mr. Jean Chabot, whose Electoral triumph at Quebec, was carried in opposition to the combined efforts of annexation and toryism, had just succeeded Mr. Tache in the Department of Public Works. Mr. Wetenhall a member of the House, and a large landed proprietor in Upper Canada, had been appointed to the place held by Mr. Cameron, in the same Department; but Mr. Wetenhall as well as the Chief Commissioner, were forced to take the chances of a re-election. Mr. Cameron was very popular in Upper Canada; he cast the weight of his influence in the electoral balance against the Ministry. He so far forgot himself as to descend to the lowest Taverns in the most obscure localities, to expound the motives of his resignation, and to unfold to a political club the secrets of the Cabinet to which he had belonged. The Liberals divided; the Tories, unable to elect one of their own party, coalesced with the *Clear Grits*; Mr. Wetenhall lost the election of Halton by a small majority. But in the midst, and at the height of the electoral cabal, the excitement of the contest, and the chagrin produced by the desertion of several of his old friends, so wrought upon his mind that the brain of that unfortunate gentleman became gravely affected. His thoughts wandered in an unknown and fantastic world, and

he knew nought of his defeat. He shortly afterwards died an inmate of the Lunatic Asylum.

The *Clear Grits* shouted in triumph. Their pretext for opposing Mr. Wetenhall, had been that his office was unnecessary, and that one Commissioner of Public Works was sufficient for the exigencies of the public service. The contest was continued through the press, but it was within the walls of the Legislative Assembly that they especially promised themselves success at the then approaching Session. Opinion was rather wavering and anxious as to the result of the ensuing meeting of the Parliament. So many conversions were spoken of to the *Clear Grit* party, and so much was said about disorder in the Ministerial ranks that it is possible that even the administration which had not computed its friends, had also some misgivings as to the issue of the meeting of Parliament.—The Legislature, however, met, and hovering clouds were dispelled as by enchantment. The parties marshalled their respective forces on several occasions; and they were found to stand thus: Ministerialists 51; Tories 19; *Clear-Grits* 5; Annexationists 4; *loose fish* 4; independent 1.—Of the four annexationists, three voted alternately with the *clear-grits*, and with the Government, according to the nature of the question; the *loose fish*, political things that have no fixed principles, and who invariably espouse that cause which pays best, ranged themselves sometimes on the side of the government, sometimes on that of the Tories, and sometimes voted with the *clear-grits*.—As to the *clear-grits* they formed a band apart, now and then backing up the Tories and cordially cooperating with them in all attempts to demolish the administration. The Tories themselves descending for the same purpose from their aristocratic height down to the vortex of *clear-gritism*, would now and then sermonize on governmental economy and advocate the elective principles everywhere; divine right was abandoned because it was no longer popular.

It is unnecessary to say that annexation has no futurity, and that within the walls of Parliament it is a mere stranger and more a by-word than the designation of a party.—*Loose-fishism*, by its very essence, can never combine as a party, and cannot therefore arrive at the possession of power. All it wishes for is, to *live*. There are, therefore, but three parties that may look forward, with



any chances, great or small, to the attainment of power; the party that now possesses it, the Tories and the *Clear-grits*. The Tories whom the general Election of 1847 had thrown into a bare minority in Upper Canada, deficient in leaders, cannot triumph in that part of the country, unless the *Clear-grits* should succeed in a notable degree to divide the liberal party; then will Toryism (which is but an aristocratic despotism) have resorted to the most *extrême* radicalism, and to the most abandoned democracy for support in the attainment of power. If, on the contrary, *clear-gritism* should absorb the whole of the Upper Canadian Liberal party, they cannot reach the Treasury Benches but by allying themselves to the Liberals of Lower Canada, the most numerous and compact portion of the Liberal party. But is such an alliance possible? This question naturally leads us to an analysis of the ingredients that compose the liberal, or, if you please, the ministerial party.

As we have already stated, the liberal party at the commencement of the Session of 1850, had the support of fifty one members out of eighty four, which is the total number of the Representatives composing the Assembly. Of these 51 members, 18 belong to Upper and 33 to Lower Canada. *Clear-gritism* or disappointment, had alienated five members from the Upper Canada portion of the liberal party, and annexation had deprived the same party of three members in Lower Canada, so that without those losses, the liberal party would now possess fifty nine members out of eighty four. But whatever befalls, it may hereafter count upon from thirty-two to thirty-six votes in Lower Canada. The Liberals of Lower Canada are called "the French party," by their political adversaries, because the great majority of them are French Canadians. Nevertheless, they have at all periods of the constitution, elected a certain number of men of other origins, for they chose their representatives without any regard to their language, their origin or their religious belief; what they solely and essentially inquired into is identity of political principles. In this respect their liberality and their good sense are proverbial. They have a marked antipathy to religious proselytism, and you very seldom hear them ask a man what religion he professes, unless it be in order to avoid saying any thing that might, unwittingly, wound or offend. Favorable as they are to all useful

and gradual reforms, they still are much attached to the institutions of their fathers; it is that noble and patriotic sentiment which has been their preservation in times passed, and which will prove their safeguard for the future. From time to time, some partial divisions may exist among their ranks. The possession of power, to which they were unaccustomed, and of which they do not seem as yet to appreciate all the advantages; the impossibility that public men should be able to satisfy all wants, all wishes, all hopes, and all personal ambitions, to reward all political services, to carry out all projects originating in times of strife and in opposition, all those may, perhaps, for a time perplex them, and lead to differences. But they know that their position is exceptional on the continent of North America; they know that a work of demolition is going on around them; they know that they can be saved but by union and by unity of sentiments and principles, and a common danger would combine the six hundred and fifty thousand French Canadians of Lower Canada as but one man, but one mind, ready to act as a lever to edify or overthrow, at the pleasure of that potent and united will. They are undoubtedly, by their nature and the circumstances attaching to their existence, the only elements of cohesion, of strength and of durability in Canada, the Upper Canadian population, incessantly renewing itself by immigration and from its natural mobility and its instincts, passing alternately from the extreme of Toryism to the extreme of radicalism.

No party, whatever may be its strength, can dispense with computing with the French Canadians; they form the *corps de l'élite* around which at all times may be drawn up in line of battle the dispersed fragments of the liberal party of Upper Canada whenever they aim either at the attainment of power or at presenting a formidable front as an opposition. Will England herself comprehend that her strength and her existence in America are alone dependant upon that social element; upon French Canadian nationality, so steadfast in its dogmas and its institutions and sentiment of self-preservation, and that she ought to the utmost of her power favor the developement of that nationality instead of repressing it, as she has done, for nearly a century and of bruising it under the hammer of despotism?

We remark in Upper Canada, even among the liberals, and perhaps more among them

than any others, a religious fanaticism insupportable and provoking, particularly for Catholics who seek but to practice in peace a religion which has existed for now nearly twenty centuries. The organs of Clear-gritism have in this respect displayed more insolence than all the rest. Not only is Presbyterianism, which appears to be their dominant religious ingredient, the only worship which, according to them, ought to enjoy the light of day; but there, also, alone is found the light of intelligence. They have proclaimed that Upper Canada was the intellectual organ of the country, and forgetting that they were absolutely impotent without the French Canadians they without provocation lavished insult upon them. They have attacked all their institutions and pledged themselves to their obliteration whenever such a power would be in their hands. It is evident that they have no settled direction and that they are blindly advancing towards the conquest of mere impossibilities. To convince one's self of this it suffices to read the labours of the levelling committee of last session, called the Committee of Retrenchment created by a vote of the House at the instance of the Government, and composed injudiciously of the most incongruous and chaotic materials. But if the Clear-Grits, always supposing that they should fundamentally substitute themselves in the place of the Liberals properly so called, do not coalesce with the French Canadians of Lower Canada, and it is evident that that coalition is impossible if these are insulted systematically in their religious sentiments, their nationality, their institutions (for an all-powerful instinct of self-preservation will suggest to the French Canadians the energetic rejection of such a coalition,) with whom will they ally themselves? Would it be with the Tories of Lower Canada? But then these are numerically null. The French element, the first condition of whose alliance will be a condition essential to its existence, will unite with that element, which will be its best guarantee for such an existence, and that stupid radicalism, called *clear-gritism*, will writhe in its impotency, and in the convulsions of despair.

We have thus succinctly shown the origin, composition and prospects of political parties in Canada.

# ECONOMY IN THE GOVERNMENT OF THE PROVINCE.

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Ever since the birth of the League, that sanguinary abortion which sprang from the ashes of the Houses of Parliament, and now slumbers peacefully in the tomb, by the side of its younger sister, Annexation,—the Tory press, and with it, its helpmate, the organ of Clear-Gritism, that offspring of deceit and wounded pride, making its appearance on the field of battle like the Arabs, after the fight is over, to spoil the dead and plunder the vanquished, be they friends or foes, have not ceased to proclaim throughout the length and breadth of the land, that the public expenditure is enormous, and to accuse the present administration of increasing the Provincial debt at their pleasure, for the purpose of creating dependants and extending their influence, asserting that the expenditure might be reduced one half were not the men now in power, like their predecessors, solely occupied in advancing their own interests, and like them, disposed to go on wasting the public money.

The Provincial debt has, doubtless, been considerably increased since the Union, but not, as it is pretended, in creating for the responsible executive additional patronage, through the increase of salaries and multiplication of offices. No; the augmentation of that debt arises from the loans which have been applied to the construction of public works, unequalled in grandeur and the admiration of Foreigners; public works, which from their enormous dimensions and their no less gigantic destination are a subject of astonishment to the great nation which is our neighbour. Canada, despite the clamours of those who prophecy "Ruin and Decay," may feel proud of her Canals, and defy the rest of the world to show their

equal. No one can deny at the present day that the enormous obstacles to the establishment of a means of communication from the ocean to our inland seas, which had been so long considered as insuperable, have been completely surmounted, and every one knows that vessels of five hundred tons may at this very moment, without the slightest obstacle or the necessity of transhipment, descend the waters of the St. Lawrence, from the very head of lake Michigan to the ocean.

But if our trade is no longer arrested by the rapids and cascades of the St. Lawrence, nor even by the formidable Falls of Niagara, reasonable men will understand that these obstacles have not disappeared before the mere will of those in power, and that to remove them by means of gigantic works, it has cost more than three millions of money, for which the country is now paying interest. Nevertheless, is there a man in the country at all capable of appreciating this great undertaking, who would venture to assert that without her debt, and, consequently, without her canals, Canada would be more prosperous and better able to rival in progress the neighbouring republic? One man alone, we are aware, has pretended that the dimensions of our Canals are extravagant and disproportionate to the wants of the trade. This man, who but lately expressed a wish to see all our public works blown up, is now more than sixty, yet should Providence grant him a few years longer life, commerce, which will furnish unceasing employment to our canals, will show the falsity of his views and of his petty and narrow ideas.

Which plan was the wiser? To com-

mence as they did with the Erie canal, in the United States, on so small a scale that it has been enlarged three times in fifteen years, or to construct, as we have done, Canals which will be sufficient for the wants of the trade, however enormous, for at least half a century to come? Any one at all conversant in matters of this nature, will unhesitatingly answer, that the plan which Canada has adopted, is by far the more economical and better one.

Our object, in laying before the public certain facts founded upon figures the correctness of which is incontestible, is not to convince the few evil-minded persons who sigh after ruin for the sole pleasure of being true prophets, and for whom the prosperity of their country is a constant cause of intense suffering, but to place upon their guard such well-disposed persons as may be exposed from want of information, or from not having sufficiently studied the subject, to echo the croakings of those who have but one cry, that of Destruction, which they represent, however, in the most seductive shape and under the most sounding names. Annexation for a moment made its appearance full of life, seemingly, and the monster, clad in the filthy rags of Socialism, after having laid its foul paw upon national feeling and the finest and holiest institutions of the country, has expired from want of food and fuel, like the bankruptcy and incendiarism which gave it birth. The League, we have already stated, is another child of incendiarism and ruin, and is now a ruin itself. Next came that other monster, Clear-gritism, a financial harpy which lays its destructive claws upon men and things. How long shall this anomalous being last? God only knows.

Every ambitious fool, every man who has been foiled in his expectations, and who is able to write, like a new vender of drugs, offers his panacea, which, without the slightest doubt, will prove a cure for all the ills of the country, and for "all the past, present, and future evils" of our political society. These politico-social charlatans may be divided into two classes.

Some pretend that by diminishing the number of public functionaries by one half, & their salaries in the same proportion, a reduction of one half the public expenditure will be obtained; the others, on the contrary, assert that this sort of economy is hardly practicable, or is but a slightly palliative remedy,

and that the only means of cure is to apply the scalpel to the *system* itself, which is defective. But all these economists, both great and small, old and young, do not state by what this system is to be replaced; they do not tell us how it can be possible to alter it without bringing on an infinitely worse state of things. Thus, both of them torture public opinion, either to further their own purposes or to parade their visionary notions, and all of them labour, some intentionally, others unwittingly, to revive those extravagant projects which the good sense of the people, it is true, has treated as they deserved, whenever they have been mooted, but which cannot fail to arouse fears in the minds of strangers as to the stability of our political institutions, and thus considerably to affect the public credit.

But let us proceed to facts, and see what our position was on the eve of the Union of the Provinces; let us inquire by referring to the Legislative records, whether, apart from the public debt, incurred for the construction of public works, the increase of grants for the instruction of youth, the administration of justice, the Sessions of Parliament, the encouragement of agriculture and the support of benevolent institutions,—the public expenditure, as far as regards the administration of the government, has in fact increased disproportionately to the increase of the population and the resources of the country.

We have, in a statement forming part of appendix No. 3 to the 6th volume of the journals of the Legislative Assembly for 1847, (with the exception of a few items the headings of which show that they do not form a portion thereof,) the Receipts and Expenditure of Lower Canada from 1792, and of Upper Canada from 1821, to the period of the Union. If we take the year 1840, as a point of departure, for both Provinces, and establish the amount of their respective populations, of their annual revenues and of their permanent expenditure at the period of the Union, we shall easily discover how the provincial debt has gradually increased to its present proportions, and ascertain whether, as the agitators affirm, it be possible considerably to diminish it, and if so, the particular items which might be reduced or entirely done away with—admitting that we continue to pay the interest of the debt punctually; that we maintain the administration of justice on such a footing of independence as to place it beyond the reach of suspicion;

that we give to the instruction of the people and to agriculture that encouragement which is due to them and which they have a right to expect from the country; that we continue to our benevolent institutions the assistance which they have up to this moment received; that we maintain the various departments on an efficient footing, and give to the public officers who are indispensable to the service of the administration, incomes proportionate to the importance of their duties, and sufficient to place them beyond the reach of temptation, and of that corruption or want which begs for bread, and unblushingly and fearlessly rears its shameless front at this very day, in the numberless public departments of the United States, and in the very councils of the government; a most demoralizing state of things which bears far more heavily on the people than the system of reasonable salaries.

From an approximate calculation, based upon the census of 1831 and 1844, the population of Lower Canada at the period of the Union of the Provinces, might have been 650,000 souls; and that of Upper Canada 436,436; forming altogether 1,086,436 souls. The Revenue of Lower Canada for 1840 was £184,132 9s. 0½d., and that of Upper Canada for the same year, £123,351 14s. 9½d., forming a total of £307,484 3s. 9½d. currency.

The permanent expenditure of Lower Canada at the same period (see statement A) amounted to the sum of £143,312 4s. 4½d., leaving a disposable balance of £40,820 4s. 8½d.; a less considerable one, however, than there had been for several years before the suspension of the Constitution, in consequence of the enormous sum applied at that period to the outfit and support of an armed police force. But as this item for the support of the police, and which amounted in 1840 to £35,430 4s. 4½d., is not to be considered a permanent one, it must be deducted from the total Provincial expenditure; in its stead, however, we must place in the column of permanent expenditure the amount of the expenses of the Legislature, which was suspended at this period in Lower Canada, and which amount, if we take the average of the ten last preceding years, was £15,000. This leaves a balance of £20,430 4s. 4½d. out of the item of Police, and by adding this balance to that mentioned above, there will be left a total annual disposable balance in Lower Canada of £61,250 9s. 0½d., which by the Union Act, became part of the consolidated fund of

the United Provinces. Things were very different in Upper Canada at the same period, that Province having to pay (see statement B) an annual interest of £57,724 0s. 5½d. on the debt incurred for the construction of her public works; her civil, judiciary, administrative and other expenditure, amounted to a further sum of £107,353 16s. 11½d., forming a total which, with the grant of £33,779 10s. 0d. towards the public works for the current year, rendered it impossible for that Province to meet its permanent expenses and continue its works. The only dowry she brought into the common fund, therefore, was an empty coffer and a liability of nearly one million.

Thus it happened that on the 9th of February, 1841, the Province of Canada with a population of 1,086,436 souls and an annual revenue of £307,484 3s. 9½d., had to pay a sum of £357,258 1s. 7d. for the expenses of the current year, in accordance with the budget submitted to both Houses during the first Session of the Parliament of the United Provinces. This, by reducing the police expenses, became an easy matter, and by raising the tariff of duties during the Session from 2½ to 5 per cent., a disposable balance was created, which could be applied towards the payment of a portion of the interest on the subsequent loan which we shall now consider, and which was raised in order to continue the public works.

At the very opening of the first Session, Lord Sydenham, who wanted a majority and was determined to have one at any price, presented his golden calf, the million and a half, a bait which produced a magic effect upon all who thirsted for general and particular improvements. Out of the members of a (so-called) Reform representation, he contrived to make, with the exception of Mr. Baldwin and half a dozen other men of honor, so many docile creatures who left their Lower Canada allies in the lurch and bowed themselves down before the idol, saying *amen* to all the iniquitous proposals of the shameless despot. This wholesale purchase of the Upper Canada representation was effected by means of a half-million which was voted for roads, harbors, and improvements of every nature in Upper Canada, and for which half million, Lower Canada has obtained as yet no equivalent. The zeal of the Upper Canada members, both Tories and Reformers, at this period was such, that they would have absorbed the whole of the million and a half in local improvements, had not the Lower

Canada Tories by uniting with the French Canadians, turned the scale in favor of grants for the purpose of completing the line of communication between the ocean and the great lakes, the very object which had served as a pretext for the union of the Provinces: The union must be effected, it was said, because Lower Canada refuses to take her share of this undertaking which has become a necessity.

We crave indulgence for these details which may at first sight appear a digression, but are intimately connected with the history of the increase of the Provincial debt, and are so many important facts which occurred during a memorable period which must not be lost sight of. Let us however, if possible, forget this unfortunate epoch of our history and continue our narration.

At the period of the Union, before this million and a half had been added to the debt already incurred by Upper Canada, Parliament had, as we have already stated, to provide for the wants of both Provinces, which amounted to the sum of £357,258 1s. 7d. The million and a half once voted for public improvements, and spent as a matter of course, together with many other sums which have been since voted for the same purpose, the Provincial debt must needs have increased from year to year, until the present day, when it rather exceeds four millions!—With such a debt on our hands, with interest to pay on it, is it astonishing that our expenditure has increased to so enormous an extent? The figures in the annexed statement will explain better than we can in words what appears a mystery to those ignorant men who will not give themselves the trouble of studying the question, or to those impostors who knowingly misrepresent it in order the better to attain their evil purposes.

**PERMANENT EXPENSES CHARGEABLE UPON THE CONSOLIDATED FUND AND PAYABLE DURING THE YEAR 1849.**

Interest on Provincial debt...	£182,727	19	11
Sinking Fund.....	75,000	0	0
Charitable Institutions, grants for Instruction, Agriculture, Penitentiary, Indians, Militia Pensions and Geological Explorations.....	93,704	6	7
Expenses of the Legislature..	54,001	7	1
Administration of Justice....	62,740	14	2
Civil and Judiciary Pensions.	7,027	17	7
Militia.....	2,034	11	1
Executive & its Departments	32,081	11	2

Printing of the Statutes, (about £5,000) and various other items, such as rent of Episcopal Palace, Losses' Commission, Montreal Registry Office Commission, Montreal Central Board of Health rent and repairs to Public Buildings, Assistance to inhabitants of Gaspe, &c....

16,593 0 6

Total amount paid on permanent expenses of 1849.... £525,913 8 2

Having taken the year 1840 as the point of departure, and the budget of 1841 for comparison, in order to obtain a correct result, we must add to the above amount the sum of £39,489 14s. 7d. being the unpaid balance of the budget of 1849, as the above statement contains only the sums paid during the year, and several items were not claimed or were only in part paid.

Amount brought down.....	£525,913	8	2
Unpaid balance of budget of 1849.....	39,489	14	7

Total amount Budget of 1849.	£565,403	2	9
do. do. 1841.	357,258	1	7

Increase from 1841 to 1849.. £208,145 1 2

Now, it is not necessary to enter into any abstruse calculation in order to prove that the figures placed opposite the respective heads of expenditure will show on comparing them with statements A & B, that the excess of expenditure for 1849 over that of 1841, does not proceed from the increase of the salaries or of the number of officials, but almost solely from the following causes:—

*First*,—The debt incurred for the construction of the public works, the interest on which has been increased since 1840 by new loans from £57,724 0s. 5½d. to £182,727 19s. 11½d., (see the Budget) forming an augmentation of.....£125,003 19 5½

*Secondly*,—Sinking fund..... 75,000 0 0

*Thirdly*, Education, 1849, £39,603 do. 1840, 18,536

Increase.....£21,067 0 0

*Fourthly*, Agriculture '49 £8,585 do. '40 2,137

Increase.....£6,448 0 0

*Fifthly*, Administration of Justice, 1849.....£62,740 do. 1840..... 45,907

Increase.....£16,833 0 0

Sixthly,—Sessions of the Legislature, 1849,.....	£54,001
do. 1841,.....	23,421*

Increase.....	30,580
	£274,931

Let us now take up in their order these six classes of increase in the Provincial expenditure, and examine whether it be possible to interfere with them with a view to economy. Let us see how far it may be possible to relieve the people from this heavy additional burthen. It is indeed worth our while to make the trial, inasmuch as from what we have first seen, the progressive increase of the expenditure in the items above mentioned, has amounted within a period of eight years to the formidable sum of £274,931 0s. 0d.

1. In the first place is there any way in which we could get rid of the obligation to pay the interest of our debt? Is there any secret by which we may attain that object, which no statesman of any country has yet found out, and which is only known to the economists of the new school? If there be any such, let it be pointed out at once, for we are sure that no one in Canada would dare to pronounce the word *repudiation*! This hideous cry once uttered by a nation her honor and credit are irretrievably lost, and let her then beware of her future wants.

The debt has been incurred, and the borrowed money applied to its object; these are facts. If the canals did not exist, we should have to find means to make them, for they are indispensable to the prosperity of Canada. We shall be told there has been waste. True, but there still would be waste had we to begin them over again, notwithstanding the experience we have acquired; besides that cannot dissolve an existing obligation nor annul a solemn contract. Pay then, we must, there can be no difficulty on this head.

Secondly,—The sinking fund is a necessary consequence of the debt; it is no more possible to do away with it than to cease paying the interest on that debt. Without this fund our public securities would soon fall in value; we have an interest in keeping it up, and it is our duty to maintain this guarantee in favor of our creditors.

\* But the Members indemnity for 1841, (£6,800) is not included in this sum, not having been paid out of the Contingencies of the Legislative Assembly, as it was in 1849.

Thirdly,—Since the Union of the Provinces, a sum of £50,000 has been set apart yearly for the support of elementary schools, and this independently of the grants in favor of private institutions. Can our economists suggest any saving in this item? Do they consider the people sufficiently enlightened to do without this grant? Self-constituted apostles of the people, do you believe that your ministry obliges you to effect in the name of the people a saving which will arrest their progress? This item also, must therefore remain as it is, for you are silent and bow your heads, (servile sycophants as you are,) before the wants and the will of the people.

Fourthly,—Agriculture, the principal means of material existence to the immense majority of the people of Canada, in like manner as Education is their intellectual food, requires stimulus and encouragement as well as the latter, if you wish to see it prosper and attain that perfection which is indispensable. Will you deprive it of that stimulus? No, say you; and it is probable also, that the representatives of the people who have received a more direct mission and a more genuine apostleship than yours, would feel inclined to vote for a higher grant than that authorised by law. This is, therefore, another item which we must take care not to touch.

5thly. The administration of Justice, we admit, costs an enormous sum at the present day. The decentralisation of the judiciary tribunals and the local administration of Justice were long demanded by the people. The Legislature has satisfied this demand by creating new districts, and increasing, at the same time, the jurisdiction of the Circuit Courts. Justice has been brought to the door of the litigants to save them costs and travelling expenses; the public chest, however, has suffered by the change, as it became necessary to appoint more judges, and consequently to pay more. These observations apply to Lower Canada; for, previous to the Union and up to 1846, the cost of administering justice in Upper Canada were paid by the different localities. It was only in 1846 that the ministry of the day, with shameful injustice, charged them upon the Consolidated Fund of both Provinces. The Union took place, and was established upon this basis; that the contracting parties should remain with their reciprocal advantages and disadvantages as they

then stood. Lower Canada had suffered sufficiently in other respects; the Union Act, it would seem, had done it enough of injustice, and laid upon it a sufficiently heavy load; and, surely, the clauses of the contract, and the trifling compensation and return they granted, might have been abided by. But the evil is done, and Lower Canada is saddled with the burthen until the *economists* relieve her of it. If they do so, we shall be rejoiced at their success.

6thly. The increase in the expenditure of the Legislature is enormous. Here, perhaps, a saving may be possible, although if we may judge from the past, there is very little probability of it. But the matter rests in the hands of the representatives of the people, and it is the duty of the people themselves to state what economy they wish for.

After examining as we have done, each head of increase in the public expenditure since 1841, it appears to us next to impossible to effect any reduction therein, as the increase is owing to new obligations which we cannot avoid performing, and to that of paying the interest on our debt. Nevertheless, this examination brings out a very important fact,—there is a considerable decrease in the administrative expenditure since the Union:

Thus, the budget of 1841 amounted to ..... £357258 0 0  
Of which, was paid for interest, during the same year ..... 57724 0 0

Leaving for administrative expenditure a balance of ..... £299534 0 0

Whereas in 1849 the budget being 565403 2 9

if we deduct the total interest on the debt and the additional grants which may be considered as indispensable, according to the above statement. £274931 0 0

Together with the interest paid on the Upper Canada debt which was deducted above, but must now be entered... 57724 0 0  
£332655 0 0

We have, for the expenses of the administration in 1849, a balance of only ..... £232748 0 0

Thus clearly showing that there has been

economy somewhere and that the Provinces of Upper and Lower Canada had to pay, before the Union, an annual sum of £66,786 (being the difference between the two balances which we have above shown) for the expenses of their administration, from which the Province of Canada has been relieved by means of savings which have been gradually effected in the various branches of the public service since the Union.

Should proof be asked in support of our assertion, the following will bear us out:

In addition to his salary the Governor of Lower Canada received his share of forfeitures and fees of different kinds; he was, also, a military officer, and, as such, was in the receipt of a large income, thus making his salary higher than that enjoyed by the Governor General at the present day.

1st. The salary of the Governor of Lower Canada, for 1840 was. £5000 0 0  
That of the Lieutenant Governor of Upper Canada, payable out of the General Revenue. .... 2222 0 0  
Do. do. out of the Casual and Territorial Revenue. .... 3232 6 3½  
Total in 1840. .... £10454 6 3½  
Salary of the Governor General in 1849 ..... 7777 15 4

Saving in 1849 of. .... £2676 10 1½  
2nd. Both Civil Secretaries' departments in 1840. .... £ 6353 1 10  
Civil Secretaries' departments in 1849. .... 1925 8 4

Saving in 1849 of. .... £4427 13 6  
3rd. Prov. Sec. and Registrar 1840 £6048 17 9½  
Do. do 1849 5367 14 4

Saving in 1849 of. .... £ 681 3 5½  
4th. Executive Council in 1840, Upper Canada, out of the General Revenue. .... £ 1590 6 9  
Do. do. Casual and Territorial Revenue. .... 168 6 8  
Lower Canada, in do. do. ... 2235 0 0

Total in 1840. .... £3994 13 5  
Executive Council, in 1849. .... 2847 4 4

Saving in 1849 of. .... £1147 9 1  
5th. Receiver General's Department in 1840, Upper Canada, out of the General Revenue of the Province. .... £3341 13 0  
Do. Casual and Territorial Revenue. .... 333 6 8



Lower Canada in 1840.....	1222	4	5	Do. do. 1849.....	1900	0	0
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Total in 1840.....	£4897	4	1
Receiver General's Dep't 1849..	2056	0	0

Saving in 1849 of.....	£2841	4	1
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6th. Crown Lands and Surveyor General's Departments in 1840, Upper Canada, out of General Revenue.....	£2033	16	7
Do. Casual and Territorial Revenue.....	3298	13	11½
Lower Canada in 1840.....	2958	6	4½

Total in 1840 .....	£8290	16	11
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Crown Lands Dep't in 1849.....	£6908	16	9
Less, Mr. Boutil- lier's salary.....	666	13	4
	6242	3	5

Saving in 1849 of.....	£2048	13	6
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It may be well to remark that the Crown Lands Department does not only comprise the two departments of that name, which existed in Upper and Lower Canada, before the Union, but it includes also the two Surveyor Generals' Departments. We must also observe that as Mr. Bouthillier, the late Assistant in this department, has been since transferred to the Customs, the annual expenses have been consequently reduced by £666 13s. 4d.

7th. Pensions, Lower Canada, in 1840.....	£3825	2	2½
Upper Canada, from General Revenue .....	4306	9	7
Casual and Territorial do.,...	2615	4	7

	£10746	16	4½
Pensions in 1849.....	7027	17	7

Saving in 1849 of.....	£3718	18	9½
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8th. Inspector General's Depart- ment in 1840, Upper Canada, out of the General Revenue.....	£1229	8	7
Do. Casual and Territorial Revenue .....	384	18	0½
Lower Canada in 1840.....	906	11	1½

Total in 1840 of.....	£2519	17	9½
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Inspector General's Department in 1849.....	3910	3	4
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Increase in 1849 of.....	£1390	5	7
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The fees which were payable in the Customs' Department before the Union, have since been done away with.

9th. Department of Public Works 1840.....	£1821	6	10
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Increase in 1849.....	£78	13	2
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Before the establishment of a Board of Works, all public works were performed under the supervision of Commissioners, who were allowed five per cent., which was certainly a much more expensive plan, and one which gave less security to the public.

It would be easy to take up, in the same manner, all the items of public expenditure and prove, that in what may be called the expenses of administration, a considerable saving has been effected almost everywhere, but let us merely recapitulate the six heads which we have above examined, and the facts will strike even the dullest understanding:—

1st. Saving on Governor General's Salary .....	£2676	10	11
2nd. Civil Secretary's Dep't.....	4427	13	6
3rd. Prov. Sec. & Registrar's dep't	681	3	5
4th. Executive Council.....	1147	9	1
5th. Receiver General's Dep't....	2841	4	1
6th. Crown Lands Dep't.....	2048	13	6
7th. Pensions.....	3718	18	9½

	£17,541	13	3½
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From the saving above mentioned effected under these six heads, we must deduct:—

8th. Increase of ex- penses of Inspector General's Dep't..	£1390	5	7
9th. Increase of ex- penses of Depart- ment of Public Works.....	£ 78	13	2
	£1468	18	9

Saving on the above items in 1849	£16072	14	6½
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In merely comparing, however, as we have done, the amounts of expenditure in 1840 with those of 1849, we do not obtain the exact amount saved, which is, in fact, much greater than would appear, inasmuch, as before the Union, many of the officers attached to the Departments we have just considered, were in the receipt of various fees, commissions, forfeitures, and emoluments of different sorts to a considerable amount, while at present not only have the salaries been reduced 20 per cent., but the fees have also been entirely done away with.

It is not to be wondered at, that the expenses of the offices of the Inspector General and Board of Works have increased by £1468 18s. 9d., inasmuch as before the Union the number of Public Works was very

small, and the provincial revenue which is collected under the immediate surveillance of the Inspector General, is now double what it then was. Let it be remembered that the population of the Province, which in 1840 was only 1,086,436 souls, is now at least 1,600,000, having increased by more than one half in ten years, and it will then be a matter of surprise that the expenses of these Departments have not increased in a greater proportion. Whoever looks fairly at these facts, must confess that some economy has been practised.

Now, we do not think it necessary, in order to satisfy the candid reader, to go on examining farther into the various branches of the public expenditure, in order to point out to him each item of saving which has been effected since 1840; but there is a class of public functionaries whose position in the government, and whose income have been a constant subject of attack, especially since the present administration has been in power; we refer to the Attorneys General. A few details respecting the situation of these officials may be of some interest.

There is nothing very astonishing, however, in these furious invectives of the press and these violent philippics against the Attorneys General. Are not these eminent persons at the head of their profession, and of the country? Do they not occupy a very high position in the opinion of their fellow-countrymen? Is not that sufficient to rouse the jealousy of every ambitious person, no matter what class he may belong to? We do not intend to discuss whether it would be more advantageous that these officers should or should not form part of the administration. The question we are discussing, being purely one of finance and economy, we merely wish to draw the attention of the reader to their salaries.

The salary of each of the Attorneys General is at present £1,100 *per annum*, with £250 for Contingencies, out of which they pay for their messengers, stationery, postage, &c. We know that the latter sum is insufficient to meet these expenses; and we know moreover, that £100 *per annum* is barely sufficient to cover the deficiency. This would then only leave to the Attorneys General a salary equal to that of their other colleagues, the contingencies of the latter being provided for by the Province. This gross allowance, however, of £1,350 *per annum*, seems to be a thorn in the side of many per-

sons, who accuse these laborious and eminently useful men of enjoying their incomes in luxury and idleness. Never at any other period than the present, were these salaries so cried out against as enormous: have the present administration increased them? Let us take up the subject a little farther back; let us consult the public accounts before and after the Union, and ascertain whether the economists have any grounds for their bitter complaints, and how these high functionaries were paid formerly.

During the three years immediately preceding the Union, we find in the journals of the special council that the sum of £12,307 15s. 0d. was paid to the Attorney General for his salary and contingencies, which, on an average, gave an annual income of £3,692 6s. 0d. to the Honorable C. R. Ogden, independently of another trifling sum of £9,600 19s. 1d. for *extraordinary* services. We need not inquire into the nature of these services; they are sufficiently explained by the period at which they were performed. So that according to these figures, the correctness of which is incontestible, Mr. Ogden received, in every year, three times the annual salary enjoyed by Mr. LaFontaine. This difference is enormous, and yet it shows but a portion of the advantages attached to this office in Mr. Ogden's time. At that period the Attorneys General were not obliged to devote the whole of their time to the public service; they were not responsible ministers; they quietly carried on their private practice, from which they received heavy fees, in consequence of the position which their office gave them at the Bar and in the opinion of the public; nor were they even obliged to give up their practice and sacrifice their private interests to go and reside fifty or a hundred leagues from their homes. The contrast between the situation of the Attorneys General of the old school and those of the present day, is very great, doubtless because the system of constitutional government has been introduced into the country; and it is doubtless, in consideration of this change, and by way of reward, that these self-constituted spokesmen of a *grateful country*, load with abuse men who daily make enormous sacrifices for the public good.

The Union Act put a stop to the prodigalities of the old regime. The salaries, nevertheless, remained very high; but they were afterwards reduced one-fifth, as we have already stated.

It is intended, we have heard, to reduce them again by one fifth, should the Imperial Government consent; at all events our ministers have made that declaration in the House. As for us, our opinion is well known on this subject; we have expressed it more than once. We have shown the danger of yielding at every moment to the foolish cries of ambitious men, of gradually bringing down the ministers to a level with persons who are without capacity as politicians or as professional men, by reducing their salaries, and of preventing men of high intelligence in the country from ever taking the management of public affairs. Ministers must remember that government will be necessary when they are gone, and must consequently avoid rendering it impossible to be carried on. They will, therefore, think twice before yielding to so disorganizing and so dangerous a measure. Besides, neither this promised reduction or any other which may follow, will be a sufficient sacrifice in the eyes of demagogues, and ambitious and incapable men will always cry out for reduction, in order that salaries and public honors may be so lowered in value as to be placed within their reach. These interested patriots will serve the country for the love of their country, and "for the sole honour of serving it," as one of our demagogues expressed it in the House the other day.

If then, as every one understands, no concession will stay the fury of the destructives, if it be impossible to dispel the storm, and if it be necessary sooner or later to weather it, why not do so at once, while the immense majority of the population of the country are still in their senses and have not yet felt the destructive influence of these preachers of a new doctrine. Do not the people understand that they ought to mistrust a patriotism so disinterested in appearance, and that false shew of economy practised by our neighbors, which reduces the salary of a Governor below that of a merchant's clerk, and which is intended to make the people believe that they pay nothing, and yet enables the public functionary, by means of his *secrets of office*, to realize a splendid fortune after he has held his place for three years. Canada is to be duped if this system of government should obtain; experience will teach her when it becomes too late, that the seeds of corruption and public ruin have been sown in her bosom.

When we have before us this plain state-

ment of the revenue and expenditure of the Province, when we see that economy has really been practised, and will be gradually continued, (with due circumspection, however) by a prudent administration, what are we to think of and what should we care for the pretensions of a few brawling fools who contend that the public expenditure may be reduced one half? Have we not sufficient proof before our eyes that they know nothing at all of the matter, and have no idea whatever of administration or government; or can we not perceive that they are so anxious to get up an agitation, that they shamelessly deceive the people, by pretending to commiserate their misfortunes in order the better to impose upon their credulity? They are aware that a question of finance is the most delicate and most advantageous one as a subject of agitation; hence it is that they have adopted the word *economy* as their rallying cry. This was Ledru Rollin's war-cry before he was allowed in the name of the French people (whose happiness was of course thereby ensured) to handle the national funds.

It will be the cry of all demagogues who may come after him, until, by the aid of barricades, they ride in their carriages as upstart aristocrats, and despise the demagogues who are obliged to walk, and who will cry out in their turn that the people pay too dearly for the said carriages.

We shall not say: reduce by one-half the number and salaries of the public officials, nor is that what the agitators of every sort require; but we say: dismiss the whole *personnel* of the Administration, from the Governor-General to the lowest menial, and let the angels of heaven take the helm of the Government into their hands. (Perhaps it would be better to leave it in the hands of the hungry Clear-Grits or of their younger companions in Socialism who might steer at night by their "brilliant pillar of light and go ahead at a pace which should keep time to the beating of their great hearts.") What saving will then have been effected? not *one-eighteenth* of the whole public expenditure.

People of Canada, those who promise you that the public expenditure may be reduced by one-half, or even by one-third or by one-fourth, are fools or knaves, and just as dangerous one as the other; the former would thrust you into the pit through ignorance, while the latter would entrap you into it

like the fox in the fable, in order to make use of your shoulders to get out of it.

After the events of February, a great cry was got up in France against the civil list and the government. To pacify the people a reduction was attempted. The budget consisted of nearly eighteen hundred millions of francs; the moderate salaries of a great number of efficient officers, fathers of families, were reduced, and the enormous budget was diminished by four millions of francs. What a mockery!

The only reduction which can be effected for the present, will be in the salaries of the ministers, of those men who labour the most, have the greatest responsibility, and whose situations are the most precarious: the saving effected on their salaries will amount to £1,000 or £1,700. To this may be added the reduction which is to take place in the salaries of the Judges; but this, of course, can only be in *prospectu*.

After having shown in the clearest manner possible, and in such detail as to tire out the reader, the folly of the retrenchment arguments, after having thoroughly exposed the absurd propositions of those who, as they say, wish to reduce by one-half the salaries of the parasites, (*ventrus*) (for such is the term applied by them to everyone holding any office whatsoever) pretending thereby to effect a saving of one-half the public expenditure for the advantage of the people whose fancy they tickle with their tiresome and stupid notions of economy; we shall now examine the arguments advanced by those who are opposed to the system itself, which in their opinion is rotten at heart, and must be immediately replaced by a sounder and more sensible one.

We have already stated that those who complain of the existing state of things, and cry out for mere change, propose nothing positive, nothing definite nor tangible, far less practicable instead of the system they find so odious; unless we consider as practicable Mr. Merritt's production contained in the report of the Finance Committee. But we need not study this project very deeply; in order to become convinced that it is defective in itself, unconnected in its details and has no practical end if the object of the ex-minister be to lighten the burthens which press upon the people. The means he proposes were they at all practicable, would only alter the mode of levying the taxes without diminishing the expenditure. On the other

hand, the author, who confines himself exclusively within financial abstractions which practice invariably modifies as it does all other abstractions, seems not to have given the slightest consideration in his plan, to the manners and customs, wants and wishes of the people of the country, in whose behalf and in whose name however, he has brought all his financial and other acquirements into play. Nor has he taken into consideration their institutions and the ties which bind them to England, matters which he does not seem to think of any importance.

Mr. Merritt's plan, in our opinion may be summed up in these few words: "Whether your manners and customs and your institutions and the peculiar circumstances in which you are placed, be or be not incompatible with the change, follow the example of the State of New York in everything: try and resemble her as if you were her other self, because she is the most perfect State of the very best Federal Republic; and aspire to nothing better, for you will have then attained the perfection and *ultima ratio* of human institutions."

But if in this famous scheme we can trace no unity of principle, no connexion between its parts, and nothing practical in an economical sense, we can at least see at the first glance that its tendency is at variance with the notions of the immense majority of the people. The abolition of all duties of Customs is recommended on the pretext of removing impediments to trade, a measure which, according to Mr. Merritt, is to draw the whole commerce of North America through our canals and to increase the Revenue from them to such a vast extent, as that in the year 1860, they shall not only pay off the principal and interest of our debt, but defray also the whole Provincial Expenditure. We are not however told, how in the mean time, and while we are waiting for this golden age, we are to meet every half year, the interest payable in London on our debt. This is a very grave omission in the gigantic schemes of the ex-Commissioner of Public Works, and one which would have very serious consequences for the country.

According to Mr. Merritt's scheme, the expenses of the administration of Justice are to be defrayed by the municipalities, who are also to furnish the aid hitherto granted to Charitable and Educational Institutions; a plan which would, of course, work admirably, more especially in those

localities where people burn school-houses, because they are asked to pay a moderate contribution which is to procure for their children the bread of knowledge, but the payment of which they resist almost by open violence. The annual aid granted for elementary education and the encouragement of agriculture, is to be provided for out of the Jesuits' estates, and the waste lands of the Crown, which produce scarcely enough to pay for surveying them! In short, Canada is to enjoy the blessings of direct taxation instead of Customs' duties; and this is not to be done for the purpose of obtaining the supposed advantages, or even the vain glory of independence, but the immense majority of the people, whether they choose or do not choose to wear foreign stuffs or indulge in foreign luxuries, are to have direct taxes imposed on them, and upon their farms and lands, for the sake of removing every check to the spirit of trading, and in order that the traders (who are pleased to call themselves the country) may with more impunity, indulge their ambitious taste for dashing risks and flaming speculations. In Mr. Merritt's eyes, the masses of the people are but of extremely secondary moment compared with the trading class: he has but one idol,—material interests; the moral, or even the physical, necessities of humanity, the wants of the heart or the soul touch him not; worshipping the god of trade alone, he would sacrifice, upon the altar of his deity, almost every real interest of society, and if he had his way society would one day call him to a strict account for the distress and ruin he would have worked.

But there is no occasion to expose further this economical scheme which made so much noise while hatching, and which now it is hatched, can find no one to protect its frail and silly existence, against the attacks of reason, economical science and administrative experience; the Destructives of every name and sort have repudiated it, and refused to adopt it as their platform, doubtless because their sole object is to destroy, and not to reconstruct, but to sit down in the cruel pride of victory among the ruins they have made. Their motto is, "Never mind our country so we have our own way," now their way is the way of destruction, and they entertain a horror of rebuilding or reconstructing. Yet Mr. Merritt's scheme would, after all, have answered their pur-

pose. For though its economical pretensions are a mere illusion, though it could take nothing from the public burthens but would, as soon as adopted, have made them heavier and more irksome; it would not the less have had the merit of destroying utterly the public credit and security, and of driving into resistance the people of this Province, who are far from being ready for such a change.

### *Statement (A) of Expenditure in Lower Canada before the Union, in 1840.*

	£	s.	d.
Governor, Lieut. Governor, or person administering the Government.....	5000	0	0
Office, Chief Secretary.....	400	12	0½
Office, Civil Secretary.....	5744	9	10½
Office, Provincial Secretary and Registrar's Department.....	1478	9	4
Receiver General's Department..	1222	4	5
Office, Inspectors and Auditors of Public Accounts.....	905	11	1
Executive Council.....	2235	11	1
Office, Board of Works.....	1832	9	2
Administration of Justice.....	38617	5	0
French Translator.....	55	11	1
Special Council.....	2765	16	6
Office, Surveyor General.....	1624	19	8½
Office, Crown Lands.....	1333	6	8
Emigrant Agent.....	1209	13	7
Grand Voyers.....	488	17	9
Inspector of Chimneys.....	27	15	6
Militia and Militia Pensions....	2339	0	6½
Education.....	5626	17	9
Supporting and Improving the Navigation of the River St. Lawrence (Trinity Houses).....	5618	6	3½
Encouragement of Agriculture...	504	4	5
Destruction of Wolves.....	105	0	0
Pensions and Allowances.....	3825	2	2½
Printing, Stationery &c., for Government.....	3398	11	0½
Distribution of the Laws.....	150	0	0
Court Houses and Gaols.....	3878	17	6
Erection of Custom Houses.....	111	2	6
Repairs, Rent and care of Public Buildings, Assessments and other charges attending the same	4031	19	10
Quarantine, Health Officer, Board of Health, Vaccine Inoculation, Hospital and other charitable institutions.....	8509	8	2
Literary and Historical Societies, Museums and other public institutions.....	200	0	0
Residents on Anticosti, and Depots of Provisions.....	100	0	0
<i>Carried forward.....</i>	£ 34541	3	1½

<i>Brought over</i> .....	£34541	3	1½
Management of Jesuits' Estates...	635	2	3½
Emigrant Societies.....	87	8	0
Police.....	35430	4	4½
Board of Militia Land Claims...	881	16	7
Miscellaneous .....	1736	10	0
	£143312	4	4½

*Statement (B) of Expenditure in Upper Canada, before the Union, out of the General Revenue for 1840.*

	£	s.	d.
Lieutenant Governor.....	2222	4	5
Executive Council and Office...	1590	6	9½
Civil (or Private) Secretary....	208	0	0
Government Office.....	2516	1	2½
Receiver General's Office.....	3341	13	0
Inspector General's " .....	1229	8	7
Surveyor General's " .....	1648	18	6½
Provincial Secretary's and Registrar's Office.....	1954	7	3
Contingencies of Public Offices..	1141	17	1
Government Printing and Printing the Laws.....	1303	6	2½
Repairs of Government House...	252	17	10½
Vice Chancellor and Judges....	7633	9	4½
Crown Officers.....	1800	0	0
Queen's Counsel.....	693	5	0
Clerk of the Crown.....	182	4	1½
Clerk of Assize.....	260	0	6
Usher and Keeper of Court of King's Bench.....	40	0	0
Miscellaneous Expenses connected with administration of Justice	28	0	0
Penitentiary.....	6300	0	0
Legislature.....	8421	14	1½
Pensions.....	4306	9	7½
Education.....	10841	19	3½
Interest .....	57724	0	5½
Light Houses.....	2350	12	8
Militia.....	1398	15	7
Militia Court Martials.....	239	0	9

Agricultural Societies.....	1683	8	4
Charitable Grants (to Hospitals, &c)	400	0	0
Repayments .....	18	5	0
	£121,730	6	6½

*Statement of Expenditure for Upper Canada, before the Union, out of the Casual and Territorial Revenue for 1840.*

	£	s.	d.
Lieutenant Governor.....	3232	6	3½
Executive Council and Office...	168	6	8
Speaker of Legislative Council...	600	0	0
Receiver General.....	333	6	8
Inspector General and Office....	384	17	9½
Surveyor General and Office.....	384	18	0½
Commissioner of Crown Lands & Surveyor General of Woods...	3298	13	11½
Surveys and Explorations.....	1148	3	2
Secretary and Registrar and Office	1436	10	7½
Public Buildings (Erection and Insurance).....	40	0	0
Allowments to Clergymen and religious Teachers, and Grants for building Churches and Chapels.	9846	11	7½
Schools and Colleges.....	2630	1	0½
Pensions .....	2615	4	7½
Public Improvements.....	1958	1	9
Emigration Expenses.....	4323	4	5
Location of Commuted Pensioners.	2196	7	8½
Indians .....	6727	5	9½
Fees on Public Instruments and Land Patents.....	57	17	10½
Travelling Expenses and Transmission of Despatches.....	829	0	4½
Commission of Enquiry on Public Departments.....	884	0	6½
Sums refunded or improperly credited and charges transferred from other funds.....	17	3	4
Contingencies and miscellaneous.	235	8	6½
	£43,347	10	10½



# THE ST. LAWRENCE ROUTE.

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For a long time a struggle has been carried on between the St. Lawrence route and the several other routes which intersect this magnificent river at various points, leading to different parts in the United States, and principally to Boston, New York, and New Orleans. We cannot exactly tell to which side victory will finally incline in this commercial contest; what we do know is this, that if we have but the will, and if England but prove faithful to us, the triumph will be ours, for nature and the deep fresh waters of the majestic St. Lawrence are with us.

But whence comes it that the St. Lawrence has been hitherto depreciated? It is owing to the many reasons into which we are about to examine in the course of the present article. Suffice it to say in the meantime that the most beautiful river in the world has been calumniated by superficial observers who, nevertheless, have done it immense injury to the advantage of the stranger, because they were vested with an official and scientific character. Thus it was that Mr. Stevenson wrote as follows to the British Government in 1838:—

"The navigation of the Gulf of St. Lawrence, through which the river flows into the Atlantic, is full of risk. To the dangers occasioned by the masses of ice which are constantly found floating on its broad waters throughout nearly half the year, must be added the thick, impenetrable fogs of its rocky shores and dreary islands that offer neither hope nor shelter to the shipwrecked mariner."

After this solemn judgment, pronounced in the face of the world, under the imperial authority, against the St. Lawrence, can it be a matter of surprise to see it judged unfavorably by the very men who have an interest in depreciating it. Thus, the editor of *Hunt's Merchants' Magazine*, after quoting Mr. Stevenson, remarks:—

"New York happily occupies a middle position between the insalubrious heat of the Mississippi and the excessive cold of

"the St. Lawrence, and excels them both by the excellence and extent of its market. Will the commerce of the lakes turn away from this favored port and from the safe route of the Erie Canal and the Hudson, to expose itself to the hazardous navigation of the Gulf of St. Lawrence?"

And if he adds, after putting this question for the purpose of answering it in the negative,—"*That* is even possible to a certain extent," is it not because the St. Lawrence possesses advantages with which it is necessary to contend whether they will or not? It is these advantages that we now proceed to analyse.

If we take Chicago as a point of departure, situated as it is at the extreme end of Lake Michigan, we will have the following results:—

From Chicago to New York..... 1600 miles.  
From Chicago to Quebec..... 1600 "

But Quebec is by 360 miles nearer to Great Britain than New York.

We have therefore for New York... 1960 miles.  
Quebec..... 1600 "

In favour of Quebec..... 360

Vessels going to New York, will have to pass through 668 feet of lockage, 81 locks and 364 miles of canal.

Those that descend to Quebec will only have to pass through 533½ feet of lockage, 49 locks and 28 miles of canal (70 in ascending.)

A steamboat of six hundred tons can make the voyage from Chicago to Quebec in ten days, six from Chicago to Port Maitland, and four from Port Maitland to Quebec. The passage from the same place (Chicago,) to New York is made in sixteen days, of which ten are from Buffalo to New York.

This gives a difference of six days in favor of Quebec.

But, observes Mr. Tache, in his report of the Department of Public Works for 1843:—  
"Although the advantages of the St. Lawrence appear incontestible, the Commis-

"sioners are of opinion they have represented them in the most unfavorable light, because they have, in comparing the time which vessels take to pass through these respective routes, allowed six days of navigation from Chicago to the foot of Lake Erie, while the passage is virtually the same for American vessels and ours. Therefore, in order the better to understand the importance of the Canadian route, it is necessary to take another point of departure; it is from Port Maitland on the one side, and from Buffalo on the other, that we must, in justice to our route, fix the points of departure, because it is at these two points alone that the natural difficulties commence which have to be vanquished on either side. A cargo of three hundred tons, arriving at Buffalo, will have to be re-shipped in five small barges which will take twelve days, generally speaking, to arrive at New York, while a similar cargo, perfectly entire and without being disturbed in the slightest, will pass through the Welland Canal and arrive in four days, at Quebec, that is, in one-third the time which the cargo, divided into parcels, will occupy in reaching New York; and, supposing that the boat, having arrived at Quebec, tranships its cargo on board a vessel ready to sail for Europe, this vessel with a fair wind would have reached the Banks of Newfoundland before the cargo that passed through the Erie Canal had been discharged at New York."

The vessels which navigate the Erie Canal, are on an average of about sixty tons, whilst our canals admit vessels of upwards of five hundred tons, or eight and one-third times larger than the former. So that a vessel of five hundred tons, arriving at Buffalo, would have to divide her cargo amongst eight barges, which, arriving at Albany, must either deposit their contents in vessels made for the navigation of the Hudson or proceed slowly to N. York. The same vessel will run through the Welland Canal in twelve hours, and arrive without obstacle at Quebec. The cargo will undergo only one transshipment from Chicago to Liverpool, and thus will much time and money be spared.

A barrel of flour costs from Buffalo to Albany:—

Freight.....	31 cents.
Canal Tolls.....	46 "
Total.....	77 "

From Maitland to Quebec:—

Freight.....	30 cents.
Canal Tolls.....	15 "
Total.....	35 "

#### RETURN FREIGHT.

A cwt. of merchandise costs from Albany to Buffalo:—

Freight.....	15 cents.
Canal Tolls.....	24 "
Total.....	39 "

or \$7.80 per ton.

A cwt. from Quebec to Maitland, costs:—

Freight.....	5 cents.
Canal Tolls.....	10 "
Total.....	15 "

or \$3 per ton.

So we have \$4.80 in favour of the St. Lawrence, without counting the storage at Albany and Buffalo, and the freight from New York to Albany. Yes, and the cool deep waters of St. Lawrence, no matter what Mr. DeWitt Clinton may say to the contrary, preserve grain and flour much better than the warm, muddy water of the Erie Canal.

The Mississippi and its tributaries, which water a valley of 785,200,000 superficial acres, capable of containing a population of 50,000,000 of souls, according to Mr. Keffer's calculations, present dangers and inconveniences which the genius of man will never be able to overcome. The river itself, narrow and not very deep, runs with a uniform rapidity of three miles an hour. When its waters are swelled by periodical floods, they drag with them in their course large trunks of trees which reach the bottom at almost every point and adhere there by their heaviest ends; the other extremities inclined towards the current and invisible to the eye of the navigator, present themselves like so many fixed lances to the vessel ascending the stream and pierce it immediately. These trunks of trees, to which the old Canadian *voyageurs* gave the picturesque name of *chicots*, destroy in this manner about a hundred vessels a year, or a fifth of all the vessels that navigate the Mississippi; an annual loss of more than a million of dollars. The premium of insurance averages from twelve to fifteen per cent, and the greater part of the steam boats, the only vessels that navigate or that can navigate effectually the Mississippi, cost more than they yield. The capital which represents these vessels,



according to Mr. Keeser, is exhausted every fourth year. The cost of transport of a barrel of flour from Cincinnati to New-Orleans is two shillings and six pence.

The climate is likewise another obstacle to the future success of the Mississippi route; tobacco, wheat, flour, pork, lard butter, cheese, &c., become damaged by the action of a warm temperature; and, in this respect, the route is much inferior even to the Erie Canal.

So far, then, the St. Lawrence possesses immense advantages over all other routes possible; but whence comes it that with these advantages so little of the produce of the West has hitherto passed through our incomparable canals? This is the question which we now proceed to solve.

The reason why the Western traders keep aloof from the St. Lawrence can only be found in the relative prices of transatlantic freight from New York and from Quebec; and this difference in the prices from New York and from Quebec must be such as to compensate the disadvantages attending the Erie Canal route. But why is the freight so high at Quebec and Montreal? Because the premium of insurance is unreasonably high, and there is no return freight. And the insurance is high because the dangers of the Gulf have been exaggerated, and we have no return freight because the advantages of this grand navigable high-way over all others, to lead to the centre of North America, and of those vast territories into which the old world pours in successive waves the superabundance of its population, are not sufficiently known in Europe.

When there was a question a good while since of building the Erie Canal, the celebrated DeWitt Clinton pronounced in favour of the direct route from Buffalo to New-York against that of Oswego and the River Seneca: "Because," said he, "if the commerce of the west once descends into Lake Ontario, we shall lose it forever." He understood thoroughly the advantages of the St. Lawrence route over all others.

Quebec alone is able to export as much flour and wheat as all the ports of the United States together. This opinion might appear at first sight to be exaggerated; to be convinced that it is not, it is sufficient to cast a glance over the immense extent of the valley of the St. Lawrence which ascends, deep and navigable, even to the very heart of the fertile and boundless plains of the west, and

to the no less fertile and boundless valley of the Mississippi.

The extent and importance of this commerce is universally acknowledged; taking, therefore, into consideration the existence of our magnificent canals, which have cost millions of money, one might reasonably ask why this very trade which, before the building of the Erie Canal, followed its natural route, takes its course towards New-York, and even drags in its train a considerable portion of the products of Upper Canada. This neglect must not be attributed to the price of interior freight, for, as we have shown, the freight from Lake Erie to Quebec is by one-half less than what it costs to New-York or any other part of the United States. We repeat the question, then, why does the transport of a barrel of flour from Montreal to Liverpool by the way of New-York, cost less than by the St. Lawrence? The answer is this, because the freight of a barrel of flour from Montreal to Liverpool by the St. Lawrence is 3s. 9d., while from New-York to Liverpool 'tis only 1s. 3d.

This difference, as we have already observed, is owing to the want of a return freight. Out of 1151 vessels which arrived at the port of Quebec in 1850, as many as 798 were in ballast. It is worthy of examination why this absence of a return freight to Quebec exists, while Great Britain furnishes her large contingent to that of New-York.

A thorough knowledge of the St. Lawrence will easily convince the most sceptic that the dangers attending the navigation of the St. Lawrence have been enormously exaggerated and that nothing can justify the exorbitant rates of insurance.

The following table, for which we are indebted to Mr. Lindsay, Secretary of the Trinity House of Quebec, indicates the number of vessels that arrived at the Port of Quebec in a period of ten years; the collective tonnage of these vessels; the number of shipwrecks that occurred in the River St. Lawrence from 1841 to 1849 inclusively; the number for each of these years and for each month of navigation in each year taken separately; the average of vessels lost each year, and each month of navigation in each year.

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*Table regarding the vessels engaged in the Trade of Quebec, indicating the number*



and is frequently lost because the sounding-lead was left lying idly on the deck, or because the captain, in his hurry to arrive at Port, compelled the pilot to weigh anchor and set sail, in the middle of a dark night or a dense fog. If the pilot could be freed from the captain's influence, as regards his living, the proportion of ship-wrecks would be considerably less than they have hitherto been, and in a short time the St. Lawrence would regain its reputation for security.

Does not the tide, which flows into the river for a distance of ninety miles above Quebec, ascending and descending at an average speed of four knots an hour, give to this magnificent Route invaluable advantages by making up for the inconstancy of the ever-varying wind?

Many persons would be surprised at learning that the St. Lawrence route is the most direct and shortest from the West to Europe, for hitherto they have been in the habit of judging of the relative position of the countries of America according to Mercator's projection of maps; but by glancing at a globe and by tracing the map lately published by authority of the Legislature of the State of Maine in order to indicate the position of the rail-road which this State purposes to build from Portland to the Gut of Canso, running through New-Brunswick and Nova-Scotia, the only map we know of which does justice to the geographical position of the St. Lawrence,—one will be readily convinced of this truth, hitherto unknown in a commercial point of view. Paris is further North than Quebec, which is situated in latitude  $46^{\circ}$ ,  $49' 12''$ , a latitude many degrees south of Great Britain. In going from America to Europe, it is evident that the shortest route must be that whose two extreme points are under the same latitude. Hence it is that Quebec is by many hundred miles nearer to Europe than New-York.

England has just learned that the traverse of the Atlantic, by means of steam, would be shortened by one-half, by passing through the straits of Belle-Isle, or by Cape-Breton, where there is an abundance of coal: that the quantity of coal would be lessened one-half, and consequently the freight would be increased by one-half. Why, then, with all these advantages, has this direct route between Great Britain and the centre of America been so long left to itself, so long neglected; and why do those who export goods from Europe to America choose

almost exclusively the New York route? This preference must be looked for in other than natural causes, for nature is with us, and let us add that she favoured us in quite a special manner during at least the last season of navigation.

It is now some years since a number of Packet boats of a superior quality were built in the ship-yards of New-York, to sail between New-York and Liverpool at fixed and regulated periods. These vessels having been encouraged by the trading public were eminently successful. Afterwards, Mr. Cunard succeeded in inducing the British Government to give a considerable premium to encourage the establishment of a line of Steamers to sail between Liverpool, Boston and New-York, touching at Halifax. These were equally successful. But the American merchants and builders endeavoured in vain, at different times to establish a similar line. Finally, after many unsuccessful attempts, the government of the United States was induced to grant a similar premium, and Collins' line of steamers came into existence, which succeeded in competing successfully with Cunard's line, though the latter was permitted by the imperial government to sail directly between Liverpool and New-York. Here, then, are two magnificent lines of steamers arriving on a fixed day every week at the two favoured ports of Europe & America, independent of the various lines of Packets that are as regular as sailing vessels could possibly be, besides a considerable number of superb merchantmen averaging from 1000 to 1800 tons.

It will be said that the steamers transport neither flour nor rail-road iron, but have always for cargo passengers and valuable goods, the exact object for which packets were intended, and consequently these latter are necessarily used as merchant vessels. They bring emigrants and heavy goods to America, which enable them to carry flour to Liverpool at a quarter or a third the price that it can be carried from Quebec or Montreal.

It is thus that the governments of Great Britain and of the United States have agreed, by a system of premiums, to grant advantages to New York to the prejudice of Quebec. But we must go farther in order to trace the ultimate results of the system of exclusive encouragement.

The emigrants and merchandize destined for the States of the West, are conveyed there

in American vessels and *vice versa*, whilst if these emigrants and this merchandize had been deposited at Quebec, they would have been carried into the interior by English and Canadian vessels, and these vessels would thus have a return freight of which they are at present deprived. This return freight would enable our vessels to transport flour to Liverpool at 1s. 3d., or nearly as cheap as from New-York, and thus to monopolize for the greater part the export trade. This trade would bring in a revenue on the products exported, in the shape of Canal Tolls; each large vessel passing through our Canals with a cargo of 15,000 minots of wheat having to pay £100. This impost (which, however, would be more than compensated by the low price of freight in the interior, on the St. Lawrence) would fall on the foreign producer and consumer, and not on the inhabitants of Canada; and the customs' duties could be proportionally diminished.

But, it will be asked: what is to be done in order to draw through the St. Lawrence the import and export trade? Is it the interest of the Imperial Government to aid us; or ought we to have recourse to differential duties? Seeing that our Canals are at present nearly completed, and that we are on the point of being able, at the cost of a trifling outlay, to afford a passage from the vast Lakes to the ocean, to vessels carrying from 4,000 to 5,000 barrels of flour, why cannot freight be taken on cheaper conditions, by this same route, from Toronto or Oswego even to New-York, than by using the narrow Erie Canal or rail-roads for the same purposes? Once that we shall have opened this export trade from the vast producing countries of the West to Europe, in how short a time would DeWitt Clinton's prophetic fears be realized!

Lower Canada is almost indifferent about the granting of reciprocity, and it will interest Upper Canada only so long as the cost of transporting its produce to the European markets, by which the American markets are regulated, shall be higher at the maritime ports of Canada than at N. York; and this difference exists because the import and export trade has taken its way through the States; and this trade has taken its way through the States because Great Britain and the United States have given it an impulse in that direction by means of pecuniary en-

couragement! At present, however, England, after having powerfully contributed by her gold to the interior and exterior commerce of the States, is wounded in her most delicate susceptibilities, in her most vital interests; is menaced in her power and even in her American possessions, by that very people so favoured by her to the detriment of her own subjects, by their proudly claiming domination over all British America, relying in so doing on these very favors and incomparable advantages that England has so liberally bestowed upon them in the prosecution of their commerce through the St. Lawrence.

The *New York Tribune* has taken on itself to express the thoughts of the American people and Congress on this subject:—

"It is only," he observes, "in giving to the Canadian people the strongest assurance, through Mr Hincks, that measures had been taken to compel the United States to grant reciprocity, that the Canadian Ministry succeeded in arresting the annexation movement last winter." He wishes to starve us into annexation.

In the face of such egotism, in the presence of provocations and hostile intentions so audaciously expressed by a friendly people, what should England do? What ought we to do ourselves with the incomparable advantages which our geographical position and our majestic river afford us? The Americans themselves are the first who have shown us how much nearer to Europe we are than they. If the Imperial Government appears disposed to abandon Liverpool, an immense commercial mart, which the New-World has called into existence, in order to choose a comparatively deserted port in Ireland because it happens to be nearer than the other to America, what is there to prevent it from abandoning New York and direct its course in a straight line towards the St. Lawrence, which is the most direct and shortest route to the centre of the vast producing and consuming countries of the West. To obtain this result, at least to hasten it, two things are essential, to wit: the encouragement of a line of steamers to sail from Great Britain to the St. Lawrence, and, for the winter, the rail-road from Quebec to Halifax, which would gradually and indefinitely be prolonged towards the West.

# PUBLIC INSTRUCTION.

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Before the Union of the Provinces, the Legislature of Lower Canada voted annually considerable sums for the encouragement of elementary schools, to the support of which the people contributed but voluntarily. Since the Union, parliament has devoted to this object an annual grant of 200,000 dollars, at present equally divided between Upper and Lower Canada, and has made provision for imposing a direct tax on the inhabitants for the benefit of public instruction. That a locality may have a right to participate in this grant, it is necessary that a sum equal to that annually granted by government, be levied by a direct tax on the people of that locality.

Among the numerous public functionaries who form the Provincial Cabinet, it is to be regretted that one specially charged with the department of public instruction is not to be found. It is an important hiatus and one that considerably impedes the progress of public instruction. Let us hope, however, that Canada will shortly enjoy the services of a minister of public instruction, and of agriculture.

Upper and Lower Canada have each a differently organized system of public instruction. In Upper Canada this system is involved with that of municipal authority; in Lower Canada, it is altogether apart from it. In each section of the Province, there is a principal functionary called a Superintendent of education, acting separately, and independently of one another, in consequence of the difference in the organization of public instruction in each section.

The following are the principal features of the law which governs public instruction in Lower Canada.

1st. The establishment of elementary schools in each locality under the control of commissioners elected by the inhabitants of such locality. The powers and duties of these commissioners are: to take charge and possession of all effects belonging to the schools of their locality. They can acquire moveable and immovable property to a limited extent. They engage the teachers,

regulate the course of studies, decide all disputes relating to the public schools, and cause a sum equal to that granted to their locality by government to be raised by a tax on the inhabitants. Besides elementary schools, they can establish a model-school, and fix the amount which each house-holder shall contribute for every child of age to attend the schools over and above the tax on his immovable property. Finally, they are charged to sue for such sums as may be necessary for the support of the schools, and to divide their locality into districts.

2nd. Honorary visitors established by law to visit the schools.—This arrangement is a dead letter.

3rd. Nomination of a superintendent for Lower Canada with a yearly salary of \$2,000, besides the expenses of the office. It is the duty of this officer to divide between each locality, according to its population, the sum granted by government, to examine the accounts sent in by the commissioners, and to make an annual report to the Legislature.

4th. In each of the cities of Quebec and Montreal, a Board composed of fourteen persons is charged with examining the qualifications of teachers. Unfortunately, this important provision is rendered a complete nullity, because the teachers are not as yet obliged to undergo an examination.

In Upper Canada, the organization of public instruction is in every respect superior to that of Lower Canada. Its principal provisions are these:—1st. Election of Commissioners to regulate the administration of the Schools: 2nd. forced qualification of teachers: 3rd. nomination of a superintendent of public instruction: 4th. the establishment of model schools by the municipal council of each county which is authorised to levy a tax for that purpose as well as for the support of elementary schools and the formation of county libraries, and to divide the township into scholastic districts; also, to appoint county and township superintendents: 5th. separate schools for Catholics and Protestants: 6th. the establishment of a Board of public instruction in each county, charged with the

examination of teachers and the granting of certificates of qualification, the choosing of books to be used in the schools, and the superintendence of forming school libraries: 7th. obligation of county and township superintendents to visit each school at least once in three months, to decide disputes arising out of the management of the schools; an appeal from such decisions to the general superintendent for Upper Canada, whose salary is fixed at \$2,000 a-year, exclusive of office expenses. The duties of this functionary, besides those which are common to him with the Superintendent for Lower Canada, are: to appoint a deputy and special visitor, to oversee the Normal School, to submit to the approbation of the municipal councils the books and manuscripts which may be addressed to him, to divide the money voted by the Legislature for the establishment of libraries, to appoint competent persons to preside over the Teachers' county associations: 8th. the establishment of a general Board of public instruction. This Board is charged with the establishment and control of a Normal School: 9th. \$6,000 taken annually from the funds voted by the Legislature for the support of the Normal School and the salaries of its professors; \$4,000 drawn from the same source and granted each year as aid to the teachers who attend this school: 10th. the Governor in Council is authorized to take annually from the Upper Canada portion of the school grant, a sum of \$12,000 for the purchase and support of school libraries.

*TABLE indicating the Progress of Public Instruction in Canada.*

LOWER CANADA.		
Total No. of elementary schools in 1849.	2,416	
" " model " "	75	
" " Colleges and Catholic Institutions for the higher branches of education.....	18	
Grand total of educational establishments*	2,509	

\* The number of private schools in Lower Canada, not being accurately known, is omitted in this calculation; consequently, the number of children attending them is not included in the 123,180 mentioned in the Table.

Total No. of children from 5 to 16 years attending elementary schools..	123,180
" " of Students in the Institutions for the higher branches of education about.....	3,500
Amount allowed to elementary schools.....£	14,500 0 0
Amount granted by Government for school-houses*.....£	39,511 0 6
Amount paid by the inhabitants for ditto.....£	53,210 15 2
Total No. of school-houses for which aid has been given by government.....	915

In nearly all the parishes, libraries have been founded, through the solicitude, zeal, and offerings of the Clergy and the inhabitants.

#### UPPER CANADA.

Total No. of elementary schools in 1849.	2,871
" " model " " ..	1
" " normal " " ..	1
" " private " " ..	157
" " Colleges " " ..	7
" " Academies and grammar schools .....	39
Grand total of educational establishments.....	3,077
Children attending elementary schools..	138,465
" " private do...	2,648
" " model do...	400
" " academies and grammar ditto.....	1,120
" " Colleges and Universities.....	772
Grand total of students and scholars....	144,406
Adult population.....	725,879
Population between the age of 5 and 16.	355,478
Total number of male teachers of elementary schools.	2,505
" " female.....	707
Number of School Libraries.....	505
" of Volumes in these libraries..	11,624
" of School-houses.....	1,972
Roman Catholic Teachers .....	35
Total annual salary of Teachers.....£	1,107,713
Method of instruction: individual, simultaneous and monitorial.	

\* This amount is composed of the various sums allowed from time to time since 1841, to aid in the building of school-houses, which sums were taken from the annual grant to Lower Canada for the encouragement of elementary education.

# CATHOLICITY IN CANADA.

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Should history make mention hereafter of Canada, it will testify that it owes its existence to secular priests and to the Jesuits, as France does to her Bishops, and England to her monks.

Thus, the first century that followed the advent of Europeans in New France, shews us, on the one side, the Jesuits scouring the country in all directions, penetrating its most distant parts, exploring its natural resources, establishing fraternal relations between the aborigines and the European stranger, and planting the standard of civilization from the Gulf of St. Lawrence to the mouths of the Mississippi. On the other side, it presents to our view the secular clergy conducting into the heart of the forest resolute bands of hardy pioneers, directing their labours, sustaining their hopes, presiding at the foundation of the humble village, rearing on the banks of the river the steeple of its chapel, and organizing little by little the Canadian parish. Acting by turns the part of judge, doctor, legislator and school-master, the missionary priest was the soul of the new establishments that grew up on both shores of the St. Lawrence. Cast in the midst of the desert, forced to struggle with nature in its wildest state, continually exposed to the incursions of the Iroquois, these infant communities had need of the authority and devotedness of the Catholic Priest to sustain themselves. His words full of hope were a barrier to despair, and his peaceful exhortations prevented anarchy and confusion from gliding into the midst of the heterogeneous elements of which these little societies were sometimes composed; whilst his learning and experience enabled him to give useful advice with regard to works to be executed, and the regulations which the common advantage required.

The just influence thus acquired among his parishioners was employed in the service of morality and religion. This formed the chief object of his mission; and all his energies and resources were devoted to it. Thus, through the watchfulness of the Ca-

nadian priest, the national character in its developement remained deeply stamped with morality and its attachment to Catholicity

Louis XIV. had cherished the idea of seeing New France become a powerful empire, in the midst of Northern America; he was anxious to oppose it as a counter-weight to the English power in the new world; even in his dreams, the protection and increase of the colony occupied his mind. Under the reign of his successor, the negligence of governors, the speculations of *employes*, followed by a disastrous defeat, shattered the favourite plans of the Great King; Canada fell into the hands of the English. Thereupon the learned and higher classes of society emigrated for the greater part; the lawyers, principal merchants, ship-owners, and the officers of the old government returned to Europe. The clergy remained on their country's soil, with 70,000 French Canadians, belonging nearly altogether to the working and agricultural classes.

Thus abandoned by their protectors and civil leaders, at the moment when they passed into the hands of a hostile power, this small population was threatened with being crushed beneath the weight of foreign emigration. The Canadians wished to preserve their religion, their language, their customs and their laws. The secular clergy came to their aid; they proved themselves what they had been since the first settlement was made in the country, the guides, the advisers, the protectors of their co-patriots; they directed them in their struggles for the maintenance of their rights; they enlightened them on their duties as citizens; they contended for their liberty of conscience; they watched over the preservation of their language and their religion; they encouraged according to their means the establishment of elementary schools among the people. The Jesuits, who had hitherto been occupied in teaching the higher branches of education, were swept away by the storm; the

Seminary of Quebec undertook to preserve amongst us the precious light of science; and of this task it has worthily acquitted itself even to this day, with the most perfect disinterestedness. At present it is aided in the good work by numerous colleges, nearly all of which were founded by Ecclesiastics.

During the ninety years that have rolled by since the conquest of the country down to the present time, Canada has made rapid progress in the way of ameliorations; considerable cities have sprung up; commerce has extended itself; forests have been transformed into verdant plains and fruitful gardens; the population has risen to the number of 1,600,000 souls. During the year just ended 200,000 children have attended the numerous schools throughout the Province. With regard to its material progress, we are happy to be able to prove by the following statistical details, that the interests of the Catholic religion have not been neglected.

The diocese of Quebec, established in 1674, by Pope Clement X., embraced all that part of America which lies North of Mexico and the Gulf of that name. Confined to the British possessions of North America, after the establishment of the Republic of the United States, without ceasing to be one of the largest dioceses in the world, eighteen new ones have been cut off from it since the beginning of the present century.

Eight of these ecclesiastical divisions are in Oregon. Six belong to the ecclesiastical Province of Quebec, erected in 1844; they are the dioceses of Montreal, Kingston, Bytown, Toronto, the North-West and Newfoundland. The bishops of Fredericton, Halifax, Arichat, and Charlottetown, are called on to take part in the conventions of the bishops of the province of Quebec, until such time as a similar organization is established among themselves.

In the following remarks we will confine ourselves to an *expose* of the state of Catholicity in those dioceses which form the ecclesiastical province of Quebec:—

#### DIocese of QUEBEC.

The *Diocese of Quebec* embraces the Districts of Quebec, Three-Rivers, Gaspé, and a portion of St. Francis; the Catholic population amounts to about 300,000 souls. It is governed by the Metropolitan Archbishop of the ecclesiastical province. The present Incumbent is Monseigneur P. F. Turgeon, consecrated bishop of Sidymé the

11th June, 1834, and become Archbishop of Quebec by the death of Monseigneur Joseph Signay, which occurred on the 3rd October, 1850.

The diocese of Quebec has a clergy composed of 220 priests, charged with the care of 120 parishes, about twenty missions, and the supervision of the studies in three large establishments of education.

The Greek and Latin languages, Belles-lettres, and Moral and Natural Philosophy, are taught in the Seminaries of Quebec, Nicolet and St. Anne. These institutions contain upwards of 50 professors, 43 students in theology, and 700 lay students, boarders and externs.

The Christian Brothers keep flourishing schools, in which the children receive a gratuitous education. They instruct:

At Quebec. . . . .	850 children.
At Three-Rivers. . . . .	280 “
At Kamouraska. . . . .	200 “
At St. Thomas. . . . .	180 “

The Sisters of the congregation of Notre Dame have charge of seven houses of education for young girls; in their beautiful and useful establishment in St. Roch's Suburb, they count already 725 scholars.

Three other institutions, to wit: the Ursulines of Quebec, those of Three Rivers, and the Nuns of the General Hospital, like the Sisters of the Congregation of Notre Dame, give a distinguished education to young ladies. These three establishments are attended by 610 scholars.

Three Hospitals are under the control of cloistered nuns: the hospital of Three-Rivers under the care of Ursuline ladies, is devoted to the sick of the town and adjacent country; the General Hospital of Quebec serves as an Asylum for 67 old persons of both sexes; the Hotel Dieu, also of Quebec, receives annually about 650 sick persons, who are tended and supported gratuitously during their illness.

A branch of the Grey Nuns of Montreal, has been lately established in the St. John's suburb, by Monseigneur P. F. Turgeon. These good and pious ladies have become Sisters of Charity, and undertake every description of good works. They visit the sick at their residence, and teach 250 children; and notwithstanding their poverty and the smallness of their lodgings, they support 36 orphans whom they endeavour to inspire with a taste for industry and the love



of order and virtue. If the efforts of the benevolent founders of this establishment are seconded by the citizens of Quebec, a vast building already in progress of construction, will be finished next summer, and will enable these excellent nuns to become still more useful to the poorer class of society.

Within the last year Quebec has witnessed the erection of an institution destined to restore to virtue those unfortunate females who, by their wicked and depraved lives, have fallen into contempt and degradation. Some charitable ladies have formed themselves into a community, without, however, making any vows. They have courageously undertaken this repugnant task, and they have already succeeded in rescuing from prostitution 18 poor creatures, whom they shelter, whom they support and endeavour to restore to honour and religion.

Many other societies, due to the religious sentiment of Canadians, have been latterly organized in the diocese of Quebec, having at the same time for their object, material and moral ameliorations.

The most useful and most important of these institutions is, without contradiction, the Temperance Society, which has produced such immense benefits among our fellow countrymen. All true patriots contemplated with regret during many years, the frightful progress of intemperance among the Canadians; they deplored the disastrous effects which this vice had caused, and the consequences still more lamentable with which it threatened us in times to come. A portion of the population were making rapid strides towards demoralization, dishonour and ruin; and it needed a vigorous effort to arrest this current of evil. Some zealous priests, influenced by the spirit of true patriotism, attempted it, and with this view they organized an association whose members pledge themselves to abstain from the use of intoxicating liquors. God shed abundant blessings on their labours; the temperance society has grown strong, it spreads far and wide in every direction, and it numbers at present more than 100,000 members in the diocese of Quebec.

The Society of the Propagation of the Faith, established in 1837, is already composed of 16,000 members. It has particularly for object to supply new establishments with spiritual aid, and to evangelize the aborigines of the country. By means of the

resources which it furnishes, missions are undertaken every year to the savages of Abbitibbi and of Mosse, a distance of 900 miles from Quebec; to the Round-Heads at the source of the St. Maurice, 600 miles from Quebec; to the Montagnais and the Naskapis, who inhabit the country to the North of the lower part of the St. Lawrence. These tribes, though speaking different dialects, belong to the great Algonquin nation, who occupied at the discovery of Canada the North-West portion of North America.

Within a few years, three colonization societies have been formed under the auspices of the Catholic Clergy. Two of these societies have commenced their operations on the borders of Lake St. John. The labours of the one are directed by the Rev. Mr. Boucher, curate of St. Ambroise; and of the other by the Rev. Mr. Hebert, curate of St. Paschal. A large extent of territory, will be ready in a short time to receive a part of the superabundant population of L'Islet, Kamouraska, and Saguenay. The third society under the superintendence of the Very Rev. Mr. Mailloux, has commenced to make a clearance in the Townships lying to the south of the St. Lawrence.

The Society of St. Vincent de Paul, founded in 1846, is employed in visiting and succouring the sick, and in procuring work for those fathers of families who are of themselves unable to find any.

#### DIOCESE OF MONTREAL.

The diocese of Montreal was founded on the 13th of May, 1836. It is governed by Mgr. Ignace Bourget, who was consecrated under the title of bishop of Telmesse, the 25th July, 1837; and who became bishop of Montreal, the 23rd August, 1840. Mgr. J. C. Prince, his coadjutor, was consecrated bishop under the title of Martyropolis, the 25th July, 1845.

This diocese contains about 350,000 Catholics; 125 parishes canonically erected, and 12 missions. The Clergy is composed of 270 priests, including the members of different religious communities. The number of students in theology amounts to about 60.

A chapter has been established in the Cathedral. It is composed of four Canons of honour, four titular Canons, eight honorary Canons and three chaplains.

The colleges of Montreal, St. Hyacinthe, Assumption, St. Therese, Chambly and the Jesuit College, give a classical education to 900 students.

The villages of Terrebonne, Joliette and St. Lawrence possess High-Schools that enjoy an excellent reputation. All the above mentioned institutions are under the direction of members of the Catholic Clergy.

In their houses at Montreal, St. Clement, Sorel and the Lake of Two-Mountains, the Christian Brothers have generally about 2,200 scholars.

The Congregation of Notre Dame, founded about the year 1650 for the instruction of young girls, has 13 houses of education, independent of their principal establishment in the City of Montreal, and the number of scholars for the current year averages 4,500.

The Ladies of the Sacred Heart have two houses and 300 scholars.

The Sisters of the Sacred names of Jesus and Mary have four houses and about 300 scholars.

The Sisters of Our Lady of Seven Sorrows have two establishments opened and 160 scholars.

The Hotel-Dieu has every year under its care and protection about 1,800 sick people.

The Grey Nuns afford habitual shelter under their hospitable roof to from 125 to 150 infirm old men and women; from 90 to 100 foundlings; from 75 to 80 orphans, and pay for the board and lodgings of from 60 to 80 children.

The Refuge of Mercy, the widows' home, under the direction of nuns, is open for different classes of the distressed, both spiritually and temporally.

The town of St. Hyacinthe has also a Hotel-Dieu, founded in 1840.

The Conferences of St. Vincent de Paul, the Association for the Propagation of the Faith, and the Temperance Society, have existed for many years in the district of Montreal. The Temperance Society reckons more than 200,000 members.

#### CANADA WEST.

Canada West contains about 150,000 Catholics, scattered throughout the dioceses of Kingston, Toronto, and Bytown.

*The diocese of Kingston*, established the 17th January, 1826, has for bishop Mgr. Remi Gaulin, consecrated the 20th October, 1833, under the title of Tabraca, and become titular in 1840. Mgr. Patrick Phelan is his coadjutor, and was consecrated bishop of Carthage the 20th August, 1843.

The clergy of this diocese number 32 priests, and it contains the following institutions:

The College of Regiopolis situated in the most elevated part of the City of Kingston; it was opened to receive students in 1846 and can accommodate 150 boarders.

The Hotel-Dieu, founded in 1845 for the indigent sick and for orphans.

The Congregation of Notre Dame; an establishment conducted by four Nuns who keep a boarding-school, in which young ladies receive a solid and comprehensive education, and a school for externs in which girls of the humbler classes are taught. The total number of scholars is about 250.

The establishment of the Grey Nuns at St. Andrew's, Glengarry, under the direction of three of the Sisterhood, who have an excellent school there.

*The Diocese of Toronto*, founded the 17th December, 1844, is governed by Mgr. A. F. M. de Charbonnel, who was consecrated by His Holiness Pope Pius IX in 1850.

Forty priests have charge of the missions of this diocese.

The Convent of Notre Dame de Loretto established at Toronto for the education of young ladies, is directed by Nuns of that order.

*The Diocese of Bytown*, founded the 25th July, 1847, has for Bishop Mgr. J. C. E. Guignes, consecrated the 30th July, 1848. The Clergy is composed of 20 priests.

The RR. PP. Oblats established at Bytown in 1843, are charged with visiting the missions of the lumbering-posts on the Ottawa and its tributaries. They have also the direction of a College at Bytown, which was opened the 26th September, 1848. The number of students is 90.

Another religious house has been founded at Bytown. It is a Grey Nunnery, and there are at present twenty-five Nuns in it. Seven of these good ladies have charge of the schools, and instruct about 150 children. The others are occupied in taking care of the hospital and in visiting the sick at their domiciles.

*The diocese of the North-West*, formerly known under the name of the Vicarship-Apostolic of the Red River, was founded the 4th June, 1847, and annexed to the ecclesiastical province of Quebec. It contains all the territory comprised between Canada, the Rocky Mountains, the 49° degree of North latitude and the North Pole. It is under the spiritual direction of Mgr. J. N. Provencher, consecrated the 12th May, 1822, under the title of Juliopolis. His clergy is

composed of seven priests.

The Grey Nuns have an establishment at St. Boniface on the Red River since 1844; they are occupied in giving instruction to young girls.

The diocese of Newfoundland, annexed to the ecclesiastical province of Quebec in 1847, comprises besides the island of Newfoundland, that of Anticosti and the Labrador territory. Mgr. J. T. Mulloch, titular bishop since the 14th July, 1850, has 24 priests in the service of the diocese.

There are two convents in the City of St. John. The Sisters of the Presentation give instruction to the female children of the poor; the Sisters of Charity are occupied in visiting the sick.

To sum up, exclusive of the dioceses of Newfoundland and the North-West, we will find that Catholic Canada contains: 1 archbishop; 6 bishops; 572 priests; more than 100 students in theology; 800,000 members of the Catholic Church; 1,800 young men who receive a collegiate education in eleven institutions kept by ecclesiastics; 3 religious orders engaged in the elementary education of boys; 50 female communities charged with the instruction of children of their own sex, with the care of the sick and of orphans; 400,000 members of the Temperance Society, &c.

This is the position in which the penal laws, with which we are menaced in England, will find Catholicity in Canada.

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## THE PROVINCIAL PENITENTIARY.

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"The table which we publish below is interesting in a moral and pecuniary point of view. The parties who throw Upper Canada into commotion in their efforts to attain power, bring frequently on the *tapis* a salary of £100 (the relic of a by-gone state of things) given to an old inspector of chimnies in Lower Canada, which, according to their statements, is an enormous charge entailed on Upper Canada. The Penitentiary item, it would appear to us, may serve as a counter-balance to this extravagant sum. As to the balance of crime, although it should bear testimony to a superior degree of civilization, since the *Examiner* has stated that "Upper Canada is the brain of the country," we do not covet it—we gladly and fully concede it to our fellow-unionists, even at the risk of being considered *less intelligent and less progressive than they*.

The number of convicts sent to the Penitentiary, military and civilians, since the 1st of October, 1840, to the 1st of October, 1849, is 2345, of which 1168 were soldiers, and 1177 civilians. Of this number only 110, or the 21st part, were of French origin. But

the French population is to the British population as 6 is to 10; we mean throughout both the Canadas. If the morality of both populations was equal, the number of convicts of French origin would be to those of British origin as 12 is to 20; but it is not even in the proportion of 1 to 21.

But, perhaps, it will be observed, that the military should not be considered as forming part of the population of Canada, because they are here to-day and away to-morrow in some other portion of the Empire. Although this kind of reasoning appears defective to us, since it does not affect in the slightest our calculation, which has reference only to the morality of the two origins who inhabit in common the same country, we have no objection to deduct from the number of convicts the 1168 soldiers who were sent to the Penitentiary since the 1st of October, 1840. The grand total of non-military being 1177, and the number of convicts of French origin being only 110, it follows that the latter do not form over a tenth part of the whole. If the morality of both origins was the same, the number of convicts of French descent would be to those of British descent as 6 is to 10, whereas it is only as 1 is to 10½.

So far we have taken as our point of departure the collective population of both Provinces, placing on one side the whole population of British origin, and on the other the whole population of French origin; but, let us now compare them as they are found in Lower Canada alone.

The total number of convicts from Lower Canada, who have been sent to the Penitentiary since 1840, is 283, of which 170 are of British origin and 110 of French origin; but the population of British origin is to the other as 1 is to 3, at the very most. If the morality of both origins was the same, the number of convicts of French origin would be 525; whereas it is not over a fifth part of that. Therefore, the French Canadians are *five times more moral* than their compatriots of the other origin, inhabiting, like them, Lower Canada.

If the question of morality was the only one at stake, we might stop at this, for we have fully accomplished an act of justice towards a race which is sought to be annihilated, but whose virtues protect it in the sight of God. It is the work of that Catholicity which the sects would wish to destroy—it is the work of Catholicity, with its salutary teachings and unsleeping vigilance, searching into the folds of the human heart to nourish it with the balm which soothes moral sufferings and restrains brutal passions. If, we repeat again, the only question were that of comparing the morality of the two races, our task would be at an end; but there is by the side of this question of morality a question of money, which is the only one of any importance in the estimation of our pure *clear-grits*, and which, consequently, we cannot but appreciate.

The number of Upper Canada convicts is 894, while those of Lower Canada amount to only 283, although the population of Lower Canada, at least up to the present year, exceeded that of Upper Canada. The support of the Penitentiary since 1840, has cost £96,257 7s. 9d. In comparing the number of convicts belonging respectively to each section of the United Province, we find that Upper Canada has cost for the support of its portion the sum of £73,112 0s. 0d., while Lower Canada has only required for the same purpose £23,145 0s. 0d. That is to say, Upper Canada has cost in ten years £49,967 more than Lower Canada for the support of its convicts, or, at the rate of £5,000 a year. It will be seen that this sum is a sufficient equivalent for the salary of the ex-inspector of chimnies, to whom we alluded in the beginning of this article, and whose salary shall occupy a place in the annual budget until the death of the pensioner.

We have to remark, in concluding, to avoid all misunderstanding, that the military convicts are supported at the expense of the military chest, and consequently are not included in the foregoing calculation.

TABLE of the No. of convicts admitted, liberated, and remaining detained in the Prov. Peniten'y, from Oct. 1, 1840, to Oct. 1, 1849, &c.

In Pen. at Union	YEARS.											
	During the year ending 1st October,											
Total	1840..	1841..	1842..	1843..	1844..	1845..	1846..	1847..	1848..	1849..		
1168	0	0	20	129	116	146	133	145	260	219		
1094	0	0	17	114	66	140	133	145	260	219		
74	0	0	3	15	50	6	0	0	0	0		
1024	59	59	74	135	149	157	136	109	113	92		
741	59	59	60	105	118	105	89	70	73	62		
153	14	0	14	30	31	52	47	39	40	30		
153	7	0	7	19	17	37	27	23	27	19		
1177	0	0	7	11	26	18	20	16	13	11		
894	59	59	94	264	265	303	269	254	273	311		
	0	0	3	116	81	153	158	147	129	224		
	62	62	78	56	56	53	38	29	39	42		
	0	0	0	0	0	3	18	10	39	22		
	0	0	0	0	2	8	10	20	30	20		
	0	0	0	0	1	209	18	11	9	20		
	62	62	71	172	137	209	18	267	376	355		
	0	0	0	0	0	0	0	0	0	0		
	153	153	150	224	317	417	443	438	453	368		
	150	150	150	179	245	312	318	300	319	245		
	0	0	0	15	45	72	125	133	134	123		
	0	0	0	8	27	39	84	80	81	82		
	0	0	0	7	18	33	41	53	53	41		
	153	153	150	256	384	478	479	467	501	411		
	153	153	150	256	384	478	479	467	501	411		
348	43	43	17	32	67	61	36	34	48	43		
312	153	153	145	224	317	417	443	438	453	368		
3051	153	153	130	179	245	312	318	300	319	245		
752	0	0	15	45	72	125	133	133	134	123		
464	0	0	8	27	39	84	80	81	81	82		
288	0	0	7	18	33	42	47	53	53	41		
9441	153	153	150	256	384	478	479	467	501	411		

## RECAPITULATION.

## ADMITTED.

Military.....	1168	
Civilians.....	1177	
Upper Canada.....	894	
Lower Canada.....	283	
Do of British origin..	173	
Do of French origin..	110	

## LIBERATED.

Military.....	1129	
Civilians.....	796	
Upper Canada.....	637	
Lower Canada.....	159	
Do of British origin..	102	
Do of French origin..	57	

## REMAINING IMPRISONED.

Military.....	43	
Civilians.....	368	
Upper Canada.....	245	
Lower Canada.....	123	
Do of British origin..	82	
Do of French origin..	41	
Died during the above period	13	

## EXPENSE.

Paid out of Consolidated fund, 1841 £10,143 18 0

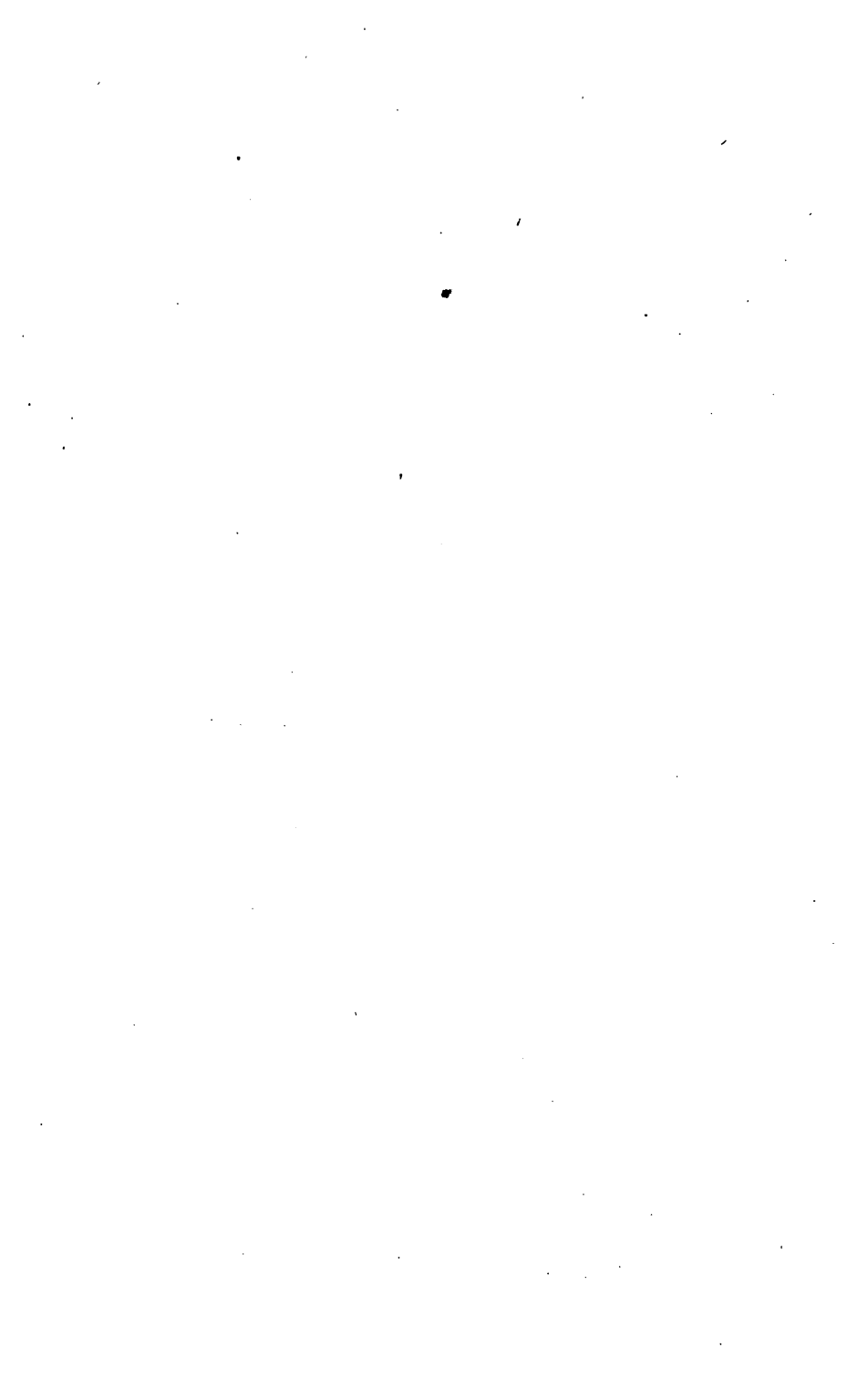
Do do do	1842	3,150	0 0
Do do do	1843	3,950	0 0
Do do do	1844	10,901	8 0
Do do do	1845	12,700	0 0
Do do do	1846	13,850	0 2
Do do do	1847	12,762	1 8
Do do do	1848	15,000	0 0
Do do do	1849	13,800	0 0

Total Expense..... £96,257 7 8

If Upper and Lower Canada had contributed in proportion to their respective number of Convicts, the result would be as follows, to wit:—

Upper Canada ....	£73,112	0 0
Lower Canada ....	23,146	9 0
	£96,257	7 8





*Geo. E. Norman*

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**R E P O R T**

**OF THE COMMITTEE ON THE**

**MONTREAL AND KINGSTON SECTION**

**OF THE**

**Canada Grand Trunk Railway.**

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# REPORT.

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*The Committee appointed at the Public Meeting, held in Montreal on Friday, the 29th November last, to consider the propriety of commencing a Western Railway, beg leave to Report :—*

That having secured the services of C. S. Gzowski, Esq., Chief Engineer of the St. Lawrence and Atlantic Railroad, they placed in his hands instructions to proceed with the necessary surveys to determine the most advantageous route from Montreal to Prescott; and subsequently, having become satisfied that it was desirable to extend the examinations to Kingston. Mr. Gzowski was instructed to report generally upon the line to that city. In reference to these surveys, the Committee would remark, that they early became satisfied that of the various routes suggested, two only required particular immediate notice—that by the Ottawa, and the direct route by the St. Lawrence—the others being merely variations of the routes, and not necessarily requiring examination at this period of the enterprise.

The Report of Mr. Gzowski is now herewith submitted :—

ENGINEERS' OFFICE,  
St. Lawrence and Atlantic Railway,  
Shenbrooke, Feb. 26, 1851.

JOHN YOUNG, Esq., Chairman,  
Executive Committee,  
Montreal & Prescott Railway.

SIR,—In compliance with the instructions contained in your communication of the 19th December last, “to examine and report on the character of the country, and facilities for constructing a Railroad from Lachine to Prescott and Kingston, on a line parallel with the St. Lawrence, and from Lachine to the same points by the North side of the Ottawa, passing through or near Grenville, and to furnish you with the distances and the probable cost of each of these routes,” I proceeded, as soon as arrangements for the purpose could be completed, to make the desired examination, and have now the honor to report the results, for the information of the Executive Committee.

Previously to entering upon the details, I wish to state, that the examination was of a general character. I traversed the

country as nearly in the direction in which the definite location of the routes would be recommended, as it was practicable to do within the time allowed, and sufficiently near, to speak with a degree of certainty as to the distances, general character of the country, and facilities for obtaining material required for construction, as well as to enable me to arrive at the probable cost of the routes respectively.

In making the examination of the route from Montreal to Kingston, by the north of the Ottawa, your instructions as to the general direction to be taken, viz.: to cross the Ottawa river at St. Eustache, and to re-cross it at or near Grenville, were complied with.

But as no particular localities were mentioned to be embraced in the examination of the line parallel with the St. Lawrence, it seems incumbent on me, previous to entering upon the description, comparison, or estimate of either of the routes, to explain for what reasons the section of the country lying at so considerable a distance from the River St. Lawrence was selected for the field of operations.

*Firstly*—By traversing the country at some distance from the River St. Lawrence, a reduction in distance is secured, and curvature to a very great extent avoided.

*Secondly*—An important saving is effected in the original cost of construction, the general surface of the country being more level, and less cut up by numerous streams, which, nearer their sources, are very inconsiderable, and are crossed without difficulty, but which increase in extent as they approach their confluence with the St. Lawrence, and become a formidable item in the expense of construction. The future working and success of the Road were also considerations that induced me to make an effort to find a practicable route at some distance from the river, possessing advantages of economy in its original cost, and not subject to competition with so powerful a rival as the navigation of the St. Lawrence.

Of the extent of success in the attempt, you will be enabled to judge from the details treating of the character of the routes.

#### GENERAL DIRECTION OF THE ROUTES EXAMINED.

##### THE NORTH OR OTTAWA ROUTE.

Commencing at Lachine, the Road can be carried in a straight line to the Riviere des Prairies, one of the branches of the Ottawa. The River at this point is divided, by Heron and Green Islands, into three channels, and presents the most

favourable point for crossing. Thence across the upper end of Isle Jesus, to the River Jesus, another branch of the Ottawa, and crossing it at a short distance above Dumont's Mills. On reaching the North-westerly bank of the river, the Line changes its direction by a curvation to the Westward, and can be carried, with but a slight variation from a straight line, to Grenville. The crossing of the Ottawa a second time being unavoidable, it was considered necessary to make an examination of several points at which this could be effected.

The first point examined was that at Carillon. The river here was found to be 1766 feet wide, between the banks; and the soundings shewed that the depth in the channel, which was upwards of 400 feet in width, was 70 feet; the depth of the river outside the channel, varied from 6 to 15 feet.

The second place at which an examination of the river for a Bridge was made, was at Watson's Island. The river is here divided by the Island, into two channels, one of 567, and the other of 892 feet in width; the depth of the water not exceeding 10 feet.

The third place examined was at Grenville, at the basin immediately below the first rapids, where the river is about 2000 feet wide; and I am informed by one of the oldest pilots, that the depth in the channel, during the ordinary state of water, does not exceed 10 feet.

If the item of cost alone is to be considered, the least expensive place for crossing is at Watson's Island; the channel there is of the least width and depth, and is quite free from jams of ice.

Bearing in view the future success of the Road, should it be carried in the direction of the Ottawa, and the necessity of securing to it the advantage of the Ottawa trade, I am led to the conclusion, that the proper place for crossing the river is at Grenville. The original cost of bridging will be somewhat greater, but the advantage of being at the foot of an uninterrupted navigation for the largest class of steamers, of sixty miles in extent, securing to the Railway the greater part of the freight and all the passenger traffic, should be a sufficient inducement to meet the additional expenditure.

Crossing the river at Grenville, to Hawkesbury, the line from thence assumes a South-westerly direction, passing near Oaledonia Springs, through the Township of South Plantagenet, near High Falls, on the River Nation, in the Township of Finch, where it will cross the Nation River, to near Armstrong's Mills, in Winchester; from thence, taking a south-

westerly direction, to Sheaver's Mills, in the Township of Mountain.

Considering this last point, as one common to both the Ottawa and the St. Lawrence routes, and from whence, both lines will assume the direction of Kingston, I will leave the description of that portion of the route to the last, and proceed to describe the St. Lawrence route from Lachine to Sheaver's Mills.

#### THE ST. LAWRENCE ROUTE.

Commencing at Lachine, the Line of Road will assume the general direction of the Northern bank of Lake St. Lewis to St. Ann's, then crossing one of the channels of the Ottawa River, traverse the upper part of Isle Perrot, and crossing the second channel of the Ottawa, near the old mill on the Hen. Mr. Harwood's Seigniory, reach the village of St. Polycarpe, in a straight line; from thence, taking a more westerly direction, through the Seigniory of New Longueuil, the rear part of the Township of Lancaster, near the village of Alexandria, rear of Charlottenburgh, near the village of St. Raphael, rear of Cornwall, south-west corner of Roxboro', rear of Osnabruk, front of Winchester and Mountain, reach Sheaver's Mills.

I have little doubt but from St. Polycarpe, in the Seigniory of New Longueuil to Sheaver's Mills, in Mountain, a distance of upwards of 57½ miles, the road will be located in one straight line.

From Shever's Mill the road will assume a south-westerly direction, and pass, it is believed, in a straight line, through the front of South Gower and Oxford, rear of the Township of Augusta, near the Village of North Augusta, rear of the Township of Elizabethtown, near the villages of Frankville and Farmersville, in Kitley, to Furnace Falls, in the Township of Landsdown, making another tangent of 42½ miles.

From Furnace Falls the line will pass through the Township of Leeds to Brewer's Mills, in the Township of Pittsburgh, near the Rideau Canal; thence following an interval between the Ridges of Granite Formation to Kingston Mills, crossing the Rideau Canal before the Last Lock, at a point called the Hellespont to the city of Kingston.

The City of Kingston can be approached in three different directions—one by crossing the valley on the north-west side of the Canal, ascending a Ridge which extends in a north-westerly direction past Kingston, and enter the city on a level

through the French Village. By this Line the Railway will pass through the city at an elevation of about 60 feet above the surface of the water in the Harbour, and there would be no difficulty in laying down, for the accommodation of the trade, a track from the main line to the water's edge, by which the Freight can be brought to and from the Main Trunk Line.

Another way of reaching Kingston is to descend into the valley of the Cataraqui River, after crossing the Canal, and following the north-west side of the River to the City.

The third practicable route for reaching the city, is to keep on the side of the Canal, instead of crossing it, following the Ridge extending to Barriefield, and with a descending grade, reach such a level as may be found necessary to cross the Cataraqui River at a point not far from the present Bridge, and enter the City on the water side.

Careful examination of the ground, and accurate surveys of all the routes, having in view the connection with the road to the west, will show the proper route for adoption.

#### GENERAL FORMATION OF THE COUNTRY.

The general formation of the country on the Ottawa as well as on the St. Lawrence routes, through which the examination was made, is very level, passing for almost the entire distance through a Lime Stone Formation, and presenting no obstacles to the construction of a cheap road, with easy grades. The crossings of the Ottawa River, are the only points where bridges of considerable extent will be required. The sites selected are favourable, and not exposed either to sudden floods or jams of ice. From Furnace Falls to Kingston the geological formation is changed from Limestone to Granite, extending from within three miles of Kingston. This section of the country is thickly studded with ponds and lakes, some of which are of considerable extent, and of great depth. The surface is much broken and required a careful examination to discover a Line for a Railway which should avoid many of the Rocky Ridges which seem to bind the Country, and at the same time shun the numerous sheets of water. Through the kindness of Mr. Hill, the Mayor of Kingston, and several other gentlemen who took a warm interest in the road, an experienced guide was provided for me, and I was agreeably surprised, at having been able by following a number of valleys, separating the ridges, some of which are of considerable width and bear uniformly in the North-easterly direction, to find a

favorable route, without the necessity of having extensive rock cuttings or objectionable curvature.

On the Ottawa route the Line examined passes through a well settled and cultivated country from Lachine to Hawkesbury. From thence to Sheaver's Mills in Mountain, for almost the entire distance, it passes through woods, generally of hard timber, showing the presence of a strong soil well calculated for agricultural operations and requiring only settlement and enterprise to make it equal to any portion of the country now under cultivation. The subsoil on the whole route, with but few exceptions, is of strong clay, requiring careful drainage and thorough ballasting to prepare it for a permanent and proper foundation to receive the rail. Timber of every description is abundant, and of good quality, suitable stone for building purposes is not readily obtained. In several localities it is many miles distant from the line of road.

On the St. Lawrence route the Line examined passes for almost the entire distance from Lachine to Sheaver's Mills, in Mountain, through a well settled Agricultural country.

Through the County of Vaudreuil but very small portion of the Road will pass through wooded land. After crossing the boundary Line between Upper and Lower Canada almost every Lot is settled, and the front and rear of every concession are cleared and farmed.

Stone and gravel are abundant and of excellent quality; from Sheaver's Mills to Kingston the country is thickly settled and well cleared. Many portions of it, such as the front of the Townships of Bastard and Kitley, and portions of Leedsdown and Yonge are in a high state of cultivation. On approaching the city of Kingston through the Township of Pittsburg, the country becomes more broken and rugged, and is less settled.

Examining the entire Line from Lachine to Kingston by the St. Lawrence route it will not be an exaggeration to state that it presents generally an appearance of prosperity and wealth among the Agricultural community. The dwelling houses are generally of stone, well built, with their barns, cattle sheds, and numerous stacks of grain around them, giving one the idea of comfort and independence and bearing, undeniable evidence that the country is capable of producing more than the mere supplies for the wants of the Farmer, needing only ready means of access to market to make it one of the finest agricultural countries on the continent.

### COMPARISON OF THE ROUTES—DISTANCE

The distance from Lachine to Kingston by the Ottawa route, taking the direction already referred to, and measuring it on the map compiled from the best authorities, is 177½ miles.

The distance from Lachine to Kingston by the St. Lawrence route, arrived at in the same manner, is 162½ miles, being only 7½ miles longer than the Air Line drawn between the two points, and showing that the St. Lawrence route is 14½ miles shorter.

### FACILITIES OF CONSTRUCTION.

The Ottawa and the St. Lawrence routes are very similar in the general formation of the country in each, the surface is very level, and easily drained, but a considerable difference will exist in the cost of construction between the two Roads on account of the distance, extent of Bridging, Grubbing and Clearing, and facilities for obtaining material for Masonry and Ballasting.

The extent of Bridging on the Ottawa route, I estimate at 5322 feet, including the crossing of the Ottawa River, the width of the respective channels being at the first crossing, near St. Eustache, 2322 feet, and at the second crossing, near Grenville, 2000 feet.

The extent of Bridging on the St. Lawrence route, including the crossing of the Ottawa at St. Ann's, (which is 1634 feet), is 2859 feet, showing a saving, in favor of the St. Lawrence route, of 2463 lineal feet of Bridging.

The item of Grubbing and Clearing will, in my opinion, be one fifth greater on the Ottawa than on the St. Lawrence route.

The facilities for obtaining material for building purposes, such as stone for masonry in the culverts and bridges, and also for procuring gravel for ballasting, are much greater on the St. Lawrence than on the Ottawa route.

On the St. Lawrence route, lime stone is found within a very short distance of, and in many cases, on the line itself. Ridges of excellent gravel run parallel with, and near it; in some instances the line crosses them.

On the Ottawa route, both of these materials will, in most cases, require to be hauled for a considerable distance.

### POPULATION.

The population of the Counties, through the interior of which the proposed routes will pass, exclusive of the popula-

tion of the City and Island of Montréal, as well as that of the City of Kingston, the Counties of Grenville, Leeds, and Frontenac, which should be added to either of the routes, will stand thus:—

The Ottawa route passes through the County of Two Mountains, with a population of about 28,791; also the County of Prescott and Russell, with a population of 13,883; making an aggregate population of 42,674 souls.

The St. Lawrence route passes through the County of Val-dreuil, with a population of 18,271; and through the Counties of Glengarry, Stormont, and Dundas, with their united population of 40,245; making an aggregate of 58,516 souls; and showing an excess in the population of the St. Lawrence route, equal to 15,812 persons, who would be directly interested and benefitted by the construction of the Road.

#### COST OF ROAD.

Before entering upon the calculation of the cost of either of the routes, it is well to remark, that the Estimate is an approximate one only.

It is for a permanent and efficient Road with grades which, in my opinion, need not, in any case, exceed 30 feet to the mile, and sufficient, it is anticipated, to cover what will prove to be its ultimate actual cost.

I estimate the cost of the Montreal and Kingston road, by the St. Lawrence route, at £5025 currency per mile; this amount covering not only the cost of construction, but also the motive power, and furniture necessary for making the road; making the total cost of the road—

162½ miles at £5025 Cy.,.....£817,818 15 0

By adopting the Ottawa route, the cost of the road will be as follows:—

177½ miles at £5025 Cy.,.....£891,937 10 0

To this must be added the additional cost  
of Bridging, which I estimate at..... 38,631 0 0

Also, the additional cost of Grubbing, Bal-  
lasting, and Masonry, which I estimate  
at ..... 33,800 0 0

Making the total cost of road from Mont-  
real to Kingston, by the Ottawa route, £964,368 10 0

Cost of St. Lawrence route,.....£817,818 15 0

Making a difference in favour of the St.  
Lawrence, of.....£146,549 15 0



Being called upon by my instructions to report on the routes in an Engineering point of view, estimating and comparing them with each other on that ground alone, I have endeavoured to give all the data and information that I was capable of collecting in the short time during which the examination was accomplished.

The results may be summed up in the following manner :— The St. Lawrence route is  $14\frac{1}{2}$  miles shorter; it will cost £146,549 15s. less than the Ottawa route; and it passes through a country, the population of which, immediately interested in the construction of the road, exceeds that on the Ottawa route, by 15,942 persons.

With great confidence in the success of the enterprise, the first important step in the accomplishment of which, you have been pleased to entrust to me, and being fully aware of the effect that the consummation of such an undertaking will have upon the trade of Kingston and Montreal, as well as the entire change that it will occasion on the Commerce and Travel of the Great West, and of the immense advantages that it must entail upon the entire section of the country through which the road may pass, I cannot but urge an early decision on the route to be adopted, and its immediate commencement.

I have great pleasure in noticing the valuable assistance I received from Mr. H. H. Macfarlane, Civil Engineer, who accompanied me while making the examination, and from whom I obtained a number of important documents and Plans of Survey of different portions of the country.

I have the honour to be,

Sir,

Your most obedient servant,

C. S. GZOWSKI.

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The Committee, in proceeding to lay before the Meeting the conclusions to which they have come, in relation to the proposed Railroad from Montreal to the Westward, have felt deeply impressed with the importance of the subject, and have endeavoured to govern themselves by considerations of that which will best subserve the general interests of the community, as well in Western as in Eastern Canada. Looking at the geographical position of Canada, and the exertions which have been made, and are making by the enterprising inhabitants of the adjoining States, to direct trade and travel from the St. Lawrence, at points above all our Public Works, your Committee believe that the time has arrived, when a vigorous and earnest effort should be made by the people of

Canada, to construct as speedily as possible, a Grand Trunk Line of Railway from Quebec to Windsor, opposite Detroit.

To the East the public see the Portland Railway rapidly approaching completion—they see this road in progress through Maine into New Brunswick and Nova Scotia, and in connection with the Railroads to Boston and New York, making Montreal a centre from whence will soon radiate lines of communication to every part of the populous and wealthy districts, lying east of Lake Champlain, and south of the St. Lawrence. To the west from Detroit, now extend hundreds of miles of Railroad, bringing to that point the products and travel of the Western interior.

Such a line of Road through Canada, will afford to five millions of people in the West and in the East, the shortest and most direct route for all the vast business intercourse between those regions, and it will perfect the advantages of the magnificent navigation of the St. Lawrence, by ensuring constant and easy communication. The want of a Railroad between Eastern and Western Canada, is at present seen by the fact, that the principal intercourse now passes via the United States, and to a commercial community it is scarcely necessary to state, that want of facility of transit tends to paralyze trade, as that will seek those channels least liable to interruption.

Montreal is, from its situation, at the head of Ocean navigation, and as the point where the River and Lake navigation commences, destined to become the centre and depot of the vast trade of the Lakes. As a seaport, it is no farther in fact, from Great Britain, than New York or Boston, (indeed less,) and will soon be accessible by vessels of at least 1000 tons, while it must be remembered, that it is really 200 miles nearer the Western Lakes than any other Ocean port, and unquestionably possesses in the season of navigation infinitely superior means of communication, both as regards cheapness and time.

Its position in winter as regards the Atlantic, is shewn by the Railroads in progress, from the seaboard at Portland, Boston and New York—while its relative distance from the West can be shewn by the following comparative statement:—

	Miles.
From Detroit to New York, via Dunkirk,.....	745
Via Buffalo,.....	820
Via Hamilton,.....	738
From Detroit to Boston, via Buffalo,.....	878
Via Hamilton,.....	796
From Detroit to Montreal,.....	565

While the Committee have thought it their duty to point out some of the advantages of Montreal, they regard the road

on which they have been required to report, as forming only a section of the Main Trunk Line from Montreal, and hereafter from Quebec also, to the Detroit River, and in this view they have conceived it necessary to extend the projected line to Kingston at once. The general line ought, in their opinion, when completed, to be divided into three sections, each being of sufficient magnitude for an independent corporation—Montreal to Kingston—Kingston to Toronto, and Toronto to the intersection with the line of Great Western Railroad, and thence to Windsor.

Regarding this line of Railroad as a part only of one great route extending within a very short period from Halifax *via* Portland (and possibly *via* Quebec also) to the extreme West, the Committee necessarily have looked to the importance of selecting that route, which, by its directness, economy and gradients, will be best fitted to attract the stream of travel, of a population now exceeding millions, and whose increase can scarcely be estimated. The considerations named are the more essential, as a most severe competition has to be sustained, and if regard be not had to these requisites, the whole object may ultimately be frustrated. No immediate advantage of securing way business can, in the opinion of your Committee, justify a course that would subject the through trade to increased charges and loss of time. It is much better that small towns should obtain access by branches, rather than that a divergence should be made from that route which is best adapted for the Main Railroad. If the question be now taken up in the way recommended, Canada will be enabled at the commencement to avoid the errors of adopting circuitous routes, and the subsequent certainty of competing lines, as is now seen in Great Britain and the United States. The best and most direct line being chosen for the leading Railroad of the Province; its interests can never be interfered with—and additional confidence will be felt by capitalists in its success. In recommending the division of the Trunk Line into three Sections only, the Committee have had in view the avoidance of the difficulties arising in operating an extensive through traffic by numerous companies. By the course suggested, it is believed that the management and expense would be greatly reduced, and arrangements for pecuniary uniformity similar to those made in the case of the Canadian and American portions of the Portland Line could be readily adopted. In connection with this subject, it appears to your Committee most important that a uniform gauge should be adopted for Canada, north of the St. Lawrence. All the evils experienced by other countries by the early adoption of an inferior system, may here be avoided, and this Province has now the opportunity of greatly profiting by this experience. Much attention has been given to this subject, and considering that Montreal is the point where a connection by bridge will soon be made between the Northern and Southern shores of the St. Lawrence, your Committee strongly urge upon the public and the Government, the adoption in Canada of an uniform gauge of five feet six inches, this having, after mature deliberation, been select

ed by the great Line from Montreal to Portland, as possessing greater capacity, more engine power, superior safety and speed. Apart, however, from these reasons, the Committee recommend this gauge as being that of the grand line of Road from Montreal and Quebec to Portland, Maine, New Brunswick and Nova Scotia. Assuming the erection of a Bridge across the St. Lawrence at Montreal as certain, it is manifestly of paramount importance to construct the Railway westward on the same gauge, as that extending 700 miles to the eastward. With the exception of the Lachine Railway, no existing interest would suffer—and in this case, the shortness of the line would render the expense of its alteration a matter of no great moment.

Having thus stated their opinion as to the policy that should rule in relation to the Railroad from Montreal to Kingston, the Committee submit the following view of the routes examined.

From Mr. Gzowski's report it appears that the direct route by the St. Lawrence is  $14\frac{1}{2}$  miles shorter than that by the Ottawa, and will cost £148,549 less, while it passes through a country where the population immediately interested in the construction of the Road exceeds that by the Ottawa route by 15,942 persons.

From the above statement it appears to your Committee most desirable that the direct route should be adopted as being decidedly the most advantageous in relation to the great interests of the Province. In cost, it has likewise the advantage, and by its intersection with the proposed Bytown Road, near Sheaver's Mills, in Mountain, it will bring that town within 128 miles of Montreal. While Bytown will then be placed within 128 miles of Montreal; the distance from Bytown to Rouse's Point via Ogdensburgh, will be 168 miles; and as Rouse's Point is only 45 miles from Montreal, it is evident that the trade of Bytown can reach any eastern market passing through Montreal, by a route as short as that via Prescott and Ogdensburgh, thus affording the Upper Ottawa Trade greater facility than could be attained by the Grenville route. By the adoption of the latter route the whole through business of the country would be subjected to an additional transport of  $14\frac{1}{2}$  miles, inflicting serious injury and ultimately ensuring the construction of a rival and direct line.

The question of the additional cost, would, in itself, have had much weight with your Committee, had it not appeared to them, that apart from it, there existed other imperative reasons for their conclusion.

On the subject of route, however, the Committee would remark that their views are offered in deference to the ultimate decision of the parties who may undertake the enterprise, and it is therefore, the more necessary, that those interested in the question, should exert every energy to acquire an influence by their stock subscriptions. The Committee discharge what they conceive a public duty in pointing out the best

route. It is for the proprietors hereafter to approve or reject their views. In the Act of Incorporation to be obtained for the Montreal and Kingston Railroad Company, the Committee have not therefore ventured to define the precise route.

In reference to the instruction to report on the best means of constructing the proposed Railroad, your Committee have felt it would be premature to take any decided steps, believing it better to await the action of the present meeting, in the appointment of a Provisional Committee, which should, in the opinion of your Committee, not exceed seven. It is, however, most encouraging to witness the enthusiastic manner in which the project has been received by the country generally, and your Committee do not doubt that with proper exertion, the means may be obtained ere long, for a commencement of the work.

Your Committee having anxiously considered the operation of the Act for granting the guarantee of the Province to Railroads, have addressed a memorial to the Government, praying the repeal of the stipulation requiring half the entire numbers of miles to be finished, on the grounds that it doubles the time required for the execution of the work—that it interferes with its proper and economical construction—that it causes precipitation in the execution of the first half, and increases its cost—that by postponing the completion of the entire line, it diminishes the inducement of Capitalists to invest, and that it really affords no security to the Province for the completion of the road, because the cost of the first half forms no criterion to judge of the latter half.

Your Committee looking also to the assistance to be obtained through the debentures of various Municipalities, have suggested to the Government, that their character would be made more acceptable to the lender, by certain modifications, and especially by authorising their issue at a higher rate of interest than six per cent. They have also suggested that, under certain conditions these Debentures might be made available equally with Provincial securities under the new Banking law.

Your Committee have also put themselves in communication with one of the principal Iron manufacturers in England, and are in hopes of getting a favourable offer for the supply of the Rails required.

In conclusion, your Committee desire most earnestly to advocate the adoption of immediate measures for the prosecution of this great work. The time is in every respect propitious—the political horizon is almost unclouded—the public credit is better than it has ever been before—money is to be obtained on favourable terms, in the great money markets of the world—public attention has been aroused to the subject—provisions, labour, iron, and all other material, are cheap—and it apparently needs but a continued vigorous effort to place the enterprise beyond a doubt. Its commencement now will give a new vigour to the Great Western Road, to the West; to the Portland Road, and to the Quebec Railroad

to the East; and it will probably call into immediate existence the remaining portion of the Trunk Line between Kingston and Toronto. Its delay or abandonment will stimulate to increased efforts, all the American Railroads stretching towards the St. Lawrence, and the Lakes, and even already reaching to Bytown; and from Toronto to Lake Huron. The Committee strongly urge the public to remember, that Trade once diverted, cannot easily be recalled, and the golden opportunity which we now have, may not for some time be renewed.

JOHN YOUNG,

Chairman of Committee.

Montreal, 4th March, 1851.

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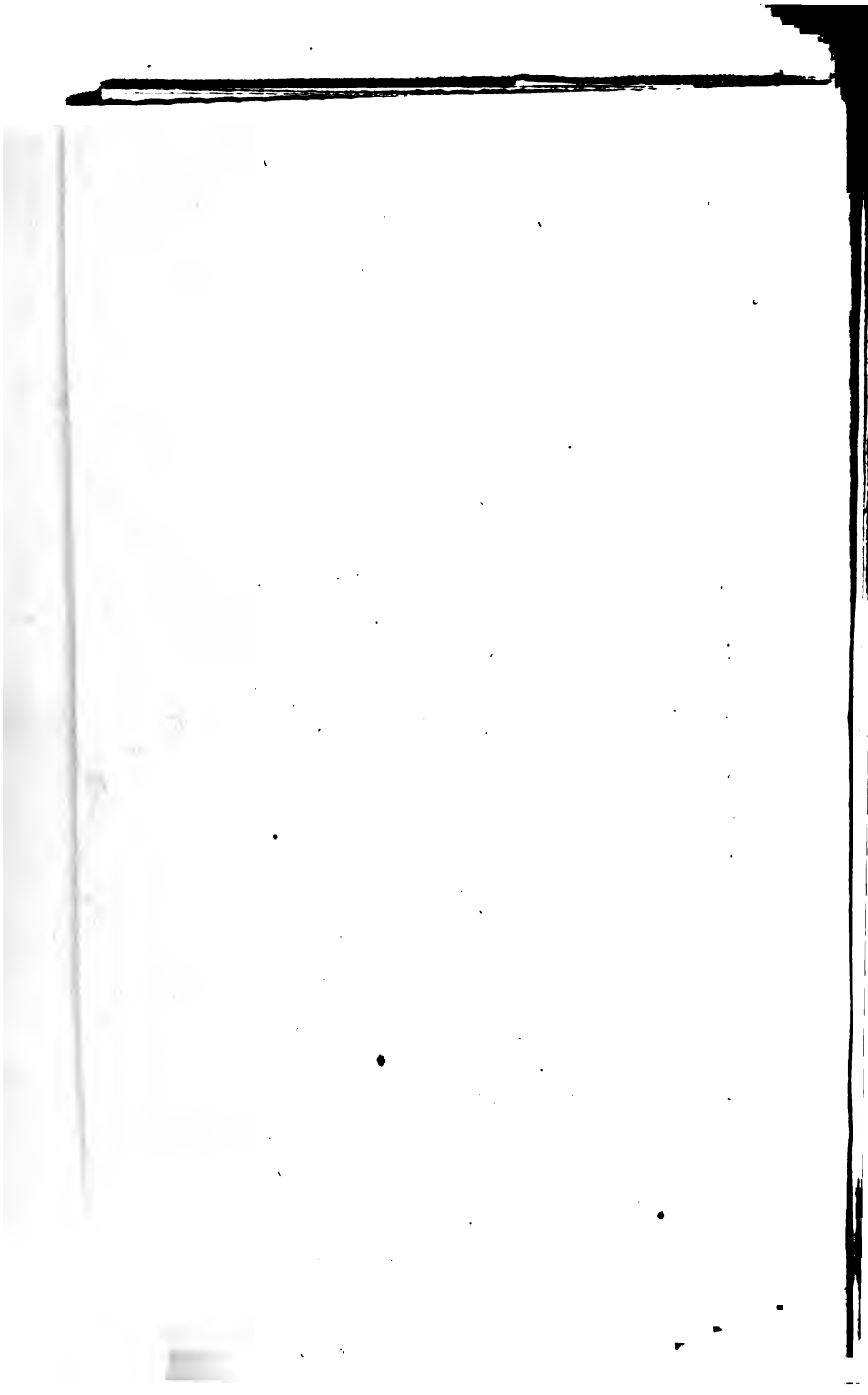
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*Geo Robert*

**Toronto and Guelph Railway.**

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**CHIEF ENGINEER'S REPORT,**

**ADOPTED BY**

**THE BOARD OF DIRECTORS,**

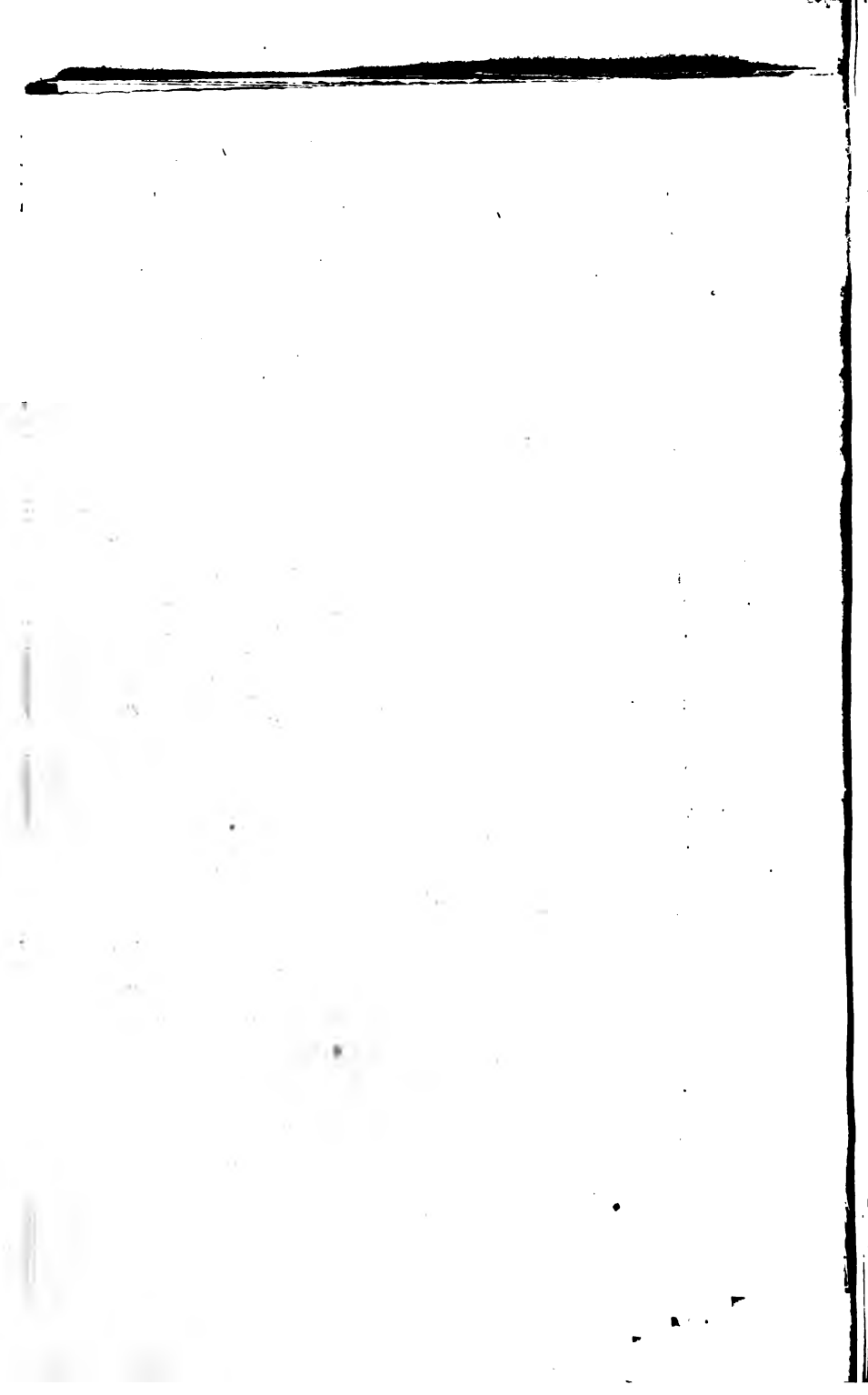
**May 21, 1852.**

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**TORONTO:**

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**1852.**



*Geo Robert,*

**Toronto and Guelph Railway.**

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**CHIEF ENGINEER'S REPORT,**

**ADOPTED BY**

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**May 21, 1852.**

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**1852.**



# TORONTO AND GUELPH RAILWAY COMPANY.

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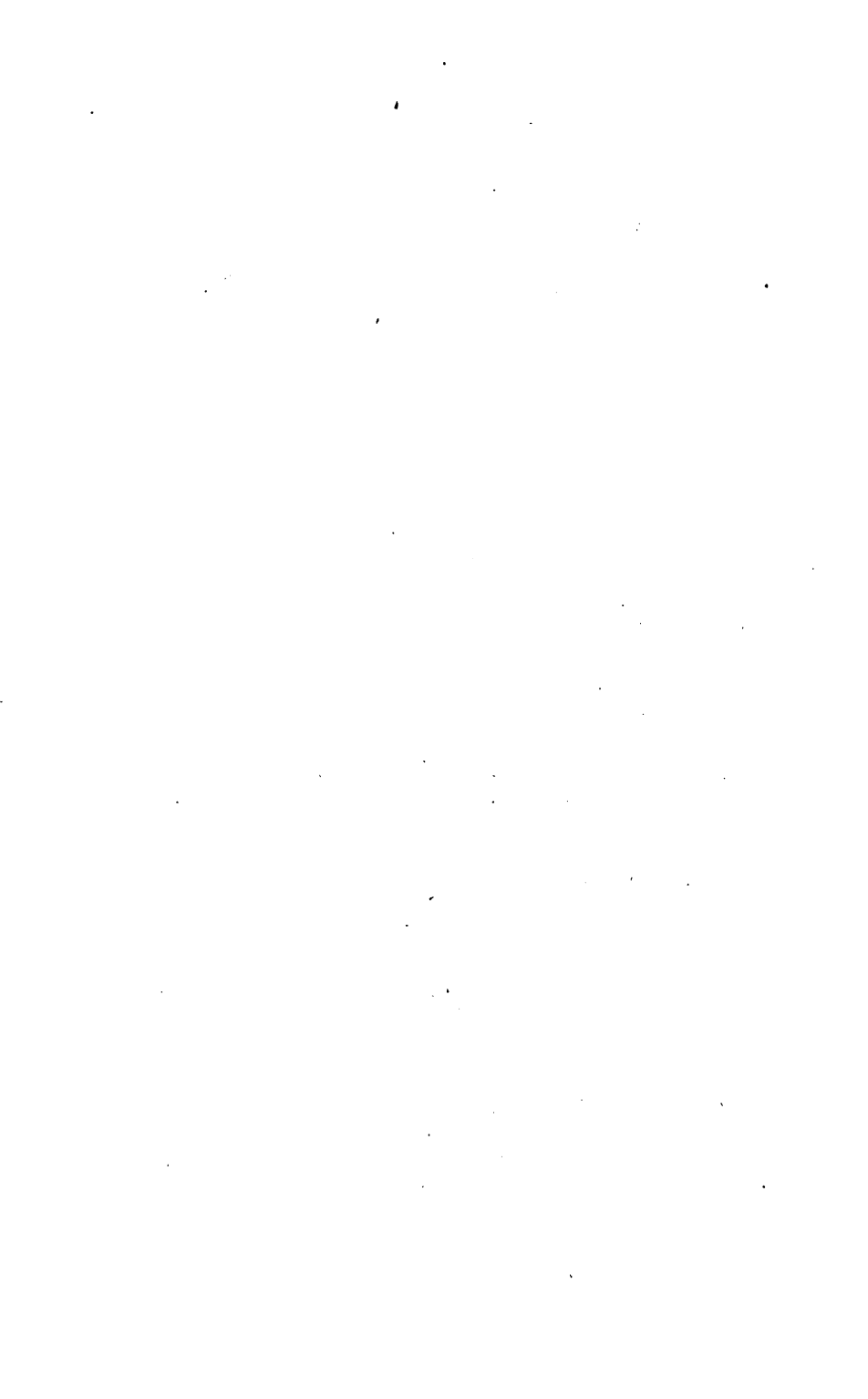
WALTER SHANLY, Esq.

### Solicitor.

JOHN W. GWYNNE, Esq., Q. C.

### Bankers.

THE BANK OF UPPER CANADA.



# REPORT.

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ENGINEER DEPARTMENT, T. AND G. RAILWAY,  
TORONTO, 21st May, 1852.

To JOHN G. BOWES, ESQ., *President*  
*Toronto and Guelph Railway Company.*

SIR,—

The preliminary Surveys to determine the most eligible route for the proposed connexion of Guelph with Toronto, by Railway, which were committed to my charge by two resolutions of the late Provisional Committee, dated respectively 24th January, and 17th March last; being now brought to a close, I have the honor to submit the following report upon the results of those surveys, and the conclusions they induce me to form as to the selection of the line, which I deem it for the best interests of the Company to recommend.

The reports of progress submitted from time to time to the Provisional Committee, related entirely to one route; that which I have designated below as the "Central" one, passing through North Toronto Township and Esquesing, by Georgetown and Acton.

In order now to lay clearly before you the whole of the proceedings, I will, with your permission, review step by step, all that has been done since the commencement of operations, towards obtaining what I conceived to be of the highest importance to the success of your project, namely,—a thorough knowledge of the topography of the region of country lying between the terminations of the proposed road,

as would satisfy the Board and the Public, that in deciding on the route to be adopted, due regard was had to combining as far as practicable the two great desiderata in all such cases : Economy of construction in the present, with the greatest probable amount of Commercial Usefulness in the Future.

I was called to this City towards the close of November last year, to treat with the Committee for the management of the work, but did not receive any definite instructions as to the course of operation to be pursued, until 3rd January, when the Secretary requested me to make such a reconnoissance of the line of country, through which, from an inspection of the map, it was presumed the road would pass, as would enable me to determine where the cost of surveys might be most judiciously incurred.

A reconnoissance of that nature I at once set about effecting, and on 23rd January reported to the Board, that the Engineering difficulties to be encountered were so much more formidable than I had been led to suppose, that before recommending any thorough survey being undertaken, it was desirable, in fact indispensable, to ascertain by instrumental examinations, at what point the summit of the elevation on which Guelph is situated, (being a continuation of the lofty table land, known at Hamilton as "Burlington Heights," and further West as "Flamboro' Heights,") could most easily be attained.

The ascent of those heights, from the abrupt front which they presented, forming a perpendicular and almost continuous rocky barrier, very lofty, and of transverse direction to your road, at once struck me as an obstacle for which you had not been prepared, and of such magnitude as might possibly altogether deter you from prosecuting your design.

I advised accordingly, that the surveys should be limited to an examination of the Mountain, until the existence of a practicable ascent had been placed beyond doubt, and was



authorized to carry out my views. Before organizing an Engineering staff, I deemed it advisable to devote some further time to exploring the opposing barrier referred to ; which object having engaged my personal attention until the middle of February, I came to the conclusion, as stated in my report of 15th March, that within the widest lateral range which I felt at liberty to assume for the location of your road, stretching from the Centre line of Trafalgar Township, on the South, to the Esquesing and Erin line, on the North, there exist but two routes whereby the summit of the table land can be reached by Railway, within the bounds of any possible outlay that you might be prepared or willing to incur.

The Committee having declined to fix, for my guidance, any intermediate localities to which the road was to be carried, I proceeded to select the *best route*, in an Engineering view, by taking measures to establish a just comparison between their topographical characteristics : and which could only be arrived at by careful and searching instrumental examinations ; because in both the passes referred to, the features of the Mountain front ; elsewhere uniform and unbroken, are there so shattered and distorted by a long series of Geological changes, as to baffle the most practised eye to discover, that in point of cost, either route would have any decided advantage over the other ; though at the same time there might exist such differences between them, in the outward conformation of the ground, discoverable only by the spirit-level, as would largely affect the estimate of "Grading." I accordingly organized two exploring parties, instructing one, commencing at Milton, in Trafalgar, to run through the valley of the *Sixteen Mile Creek*, until the summit of the heights was reached, and so on to Guelph : the other, commencing at George Town, in Esquesing, to follow the Valley of the *West Credit River*, and extend their explorations also to Guelph. Those two streams, or their valleys, presenting the only "breaks" in the face of the precipice, through which a

direct rail communication between Toronto and Guelph, and in my judgment ever be effected.

Operations had only just been commenced, when I was instructed to the effect, that it was deemed inexpedient then to survey more than one route—and that the Northernly one, via Georgetown and the West Credit valley : I at once therefore altered my arrangements, by withdrawing the party from the Southern exploration, and sending it to the aid of that engaged in the Northern pass, where the very great and almost unprecedented depth of the snow, would in any case have demanded an augmentation of the force at first employed.

The actual surveys were not commenced until the 18th February. On the 15th March, I reported the existence of a practicable, but costly, route from Georgetown to Guelph, taking in Acton.

The practicability of the ascent being thus established, I was empowered to produce the Surveys from Georgetown, Eastward, to such point on the Main Credit River as I might find best adapted for conveniently crossing the stream and valley, and thence to seek the most direct practicable route to Toronto.

After a careful personal reconnoissance of the country from Georgetown to the Humber, I directed my assistant to guide the Surveys to Silverthorn's Mills, (Meadowvale,) in the Township of North Toronto ; at which place the banks of the Credit are less bold, and the facilities for bridging better, than at any of the many points examined higher up the stream. From Silverthorne's, the line was continued in a direct course to Fisher's Mills, on the Humber, and thence to Toronto, entering the City near the Toll-gate on Queen Street, and terminating at the Queen's Wharf.

On the 29th March, I submitted the result of this "trial line," showing that upon that course there exists a feasible route, presenting no difficulties that need deter the citizens of Toronto, and other Share-holders, from prosecuting an enter-

prize in which they had already embarked with so much spirit.

The "trial" Surveys so far made, were sufficiently searching, supposing the route to which they referred to be unconditionally adopted, to admit of the next important step being taken, namely,—the final "locating" of the road preparatory to its being declared open for competition to contractors.

As is usual in all such cases, however, considerable diversity of opinion existed, out of doors, giving rise to much Newspaper discussion, as to whether the *one* line examined was certainly "the best one," or whether the interests of the Company would not be better consulted, by ascertaining from actual survey, the comparative merits of certain other mooted routes.

Accordingly, on the 3rd April, I received a copy of a resolution, passed at the first session of the present Board of Directors, instructing me to survey a line "from Georgetown through Brampton to Toronto," or "any other line" that I might "deem advisable for the interests of the Company."

The responsibility of deciding on the route thus in a great measure devolving upon me, I pursued the course usually taken by Engineers under similar circumstances, namely,—that of providing myself with *facts* wherewith to sustain whichever route it might become my duty to advocate.

Such facts could only be gathered from instrumental examinations, and I accordingly exercised the power vested in me, by carrying out what I had designed in the outset of operations: Surveying each route under discussion, namely,—the Southern one, through the still untried valley of the *Sixteen*; and, below the Mountain, two others, North of the central one already run: the one passing through *Brampton*, the other through *Brampton* and *Weston*; being desirous, in arbitrating between the rival locations, of placing them before you in their true merits and in all their bearings.

This course was, I feel assured, the best for the interests

of the Company, because all experience in such matters goes to show, that so long as there exists the probability of improving upon a route, when the work must be of an expensive character, as in the case before us, the cost of thoroughly surveying the country is money judiciously laid out. It was also the course certain to prove eventually most satisfactory to the Board, as enabling them to meet the clamor amongst "those without," which local partialities and disappointed individual interests will ever give rise to, where a coveted prize has to be adjudged undivided to some one of many competitors.

I have compressed the foregoing preface into as small a compass, as a detailed exposition of the proceedings of the last four months seemed to me to admit of, and will now lay before you a sketch of each of the Routes explored, and which for perspicuity I designate as follows :—

1st, The "Southern" or "Streetsville and Milton" Route.

2nd, The "Central" or "Meadowvale and Georgetown" Route.

3rd, The "Humber and Brampton" Route.

4th, The "Weston and Brampton" Route.

To simplify the comparisons I am about to draw between the foregoing lines, I will here premise, that with the exception of the last named, one crossing point of the River Humber is common to them all, that being on Lot No. 8 of Etobicoke, a little below Fisher's Mills, where the valley of the stream is 750 feet wide, and the water 105 feet below the "Grade Line" of the Road ; thence to the City limits, or to any point within the City, there are scarcely ordinary difficulties to stand in the way of construction.

The "Southern Route," departing from the Humber at the point above noted, is straight to where it intersects the Credit, close by and South of the Village of Streetsville ; thence again, we have an almost undeviating straight line to Milton,

in Trafalgar, at which point, where we are 412 feet above the Lake, commence the difficulties of scaling the Heights. Leaving the Village of Milton close on the right, and passing a short distance in rear of "Peru Mills," the line follows the general direction of the Valley, having to cross the Sixteen Mile Creek twice within a distance of one mile, and at a least elevation of 30 feet above its waters.

On reaching the "Third Line" of Nassagaweya, we are clear of the valley and on comparatively even ground, but still ascending. In the first Concession of that Township, we reach the summit of the Table land, 920 feet above the Lake, being just 10 miles from the foot of the ascent at Milton, having in that distance risen 508 feet.

The Township of Puslinch is entered on Lot 18, and on the front of the tenth Concession, an abrupt rocky ridge, at right angles to the line, has to be crossed, the width of which may be taken at 4000 feet, and its elevation above the Lake 1011 feet; thence we have a direct route, nearly due West, to the Guelph boundary, enter that Township at the angle of the dividing line between Blocks C and G, and continuing on same course to the Town of Guelph, cross the Speed a little North of the Dundas Bridge, having altogether shunned the Eramosa Creek, which upon every other route surveyed, involves a crossing of no trifling magnitude.

The Central route is straight from the Humber to the Esquering line, the Credit River being crossed, very favorably, at Silverthorn's Mills, in the third Concession of North Toronto. From the Toronto and Esquering line to Georgetown, the course is perfectly straight, crossing the West Credit Stream, in the tenth Concession of the last named Township, and leaving Norval Village  $1\frac{1}{4}$  mile to the North.

At Georgetown, which stands 635 feet above the Lake, the ascent of the mountain on this route may be said to commence, as it does at Milton on the other. Leaving Georgetown, the line has a direction about S.  $70^{\circ}$  W., passes Clendin-

an's Mills in the sixth, and Lawson's Mills on the fourth Concession, and so on to Acton;  $1\frac{1}{2}$  mile beyond which place, the summit is attained, 971 feet above Lake Ontario, and 336 feet above Georgetown, from whence it is distant 7 miles.

From this summit to Guelph, I have had three surveys made; two only of the lines are practicable; one of them follows the old course traced by Messrs. Brough and Wells; the other, more northerly, passes near the Mills at Rockwood. Those two routes converge to the same point on the River Speed at Guelph, close by Allen's Mills; the latter line, that via Rockwood, has in every respect the advantage of the other, and would be the one adopted, should the "West Credit" Route come to be elected over that through the valley of the "Sixteen."

As those two routes, Nos. 1 and 2, are to be compared with one another throughout their entire length, I shall proceed to strike a balance between them, before touching on the other two, both of which have reference to the *Eastern* section of the road only.

The characteristics of all that portion of the "Southern line," lying below the Mountain, are generally similar to those of the corresponding portion of the "Central Line." In point of directness they are about equal, and so with regard to the River crossings. On both, there exists a most objectionable ridge, dividing the Etobicoke valley from that of the Credit, and which in both cases would compel us to adopt a gradient of 53 feet in the mile for a distance of  $2\frac{1}{2}$  miles.

From the crossing of the Main Credit, on the Central Route, to Georgetown, 10 miles, the character of the work would be neither very heavy nor expensive, except at the crossing of the West Credit stream, and the maximum gradient 47 feet per mile.

On the Southern Route, after the Credit has been crossed at Streetsville, a sudden descent in the ground, and, further on, an abrupt "step" bars the way, again forcing us to the

expedient of a 53 feet gradient, for a distance of  $1\frac{1}{2}$  mile, and even that would be obtained by recourse being had to a cutting of 40 feet in depth, and an embankment of great length, varying in height from 30 to 46 feet. This plane added to that on the east side of the Credit, gives 4 miles of 53 feet gradient, below the mountain, on the Milton route, against  $2\frac{1}{2}$  miles on the Georgetown line ; a feature, which alone, even were the advantage in point of cost not ranged upon the same side, entitles the *Eastern* section of the Central route to an unqualified preference over its Southern rival.

But it is on the merits of the portions lying West from Milton and Georgetown, that the verdict will mainly hinge.

On the Southern route, the general summit of the table land is 920 feet, on the Central 971 feet above Ontario. In the former case, the highest point is reached in a distance of 10 miles from, and an elevation of 508 feet above, Milton ; in the latter case, from Georgetown 7 miles, and above it 336 feet, those two places being assumed as the "foot of the mountain" on their respective routes.

The above figures, comparing heights to be overcome with distances, show a balance in favor of the route through the West Credit valley, over that through the valley of the Sixteen Mile Creek ; in addition to which, the "rise" is more evenly distributed over the whole distance on the former, than on the latter line, where the profile presents a series of abrupt "steps," which would cause the cuttings, in seeking for similar *grades* (53 feet per mile), to compare *impracticably* with those on the West Credit Route ; and with similar cuttings, we would have to put up with 4 miles of 70 feet gradient and a startling amount of rock excavation.

In point of "allignment" the more Northerly is also the more desirable route ; there being from Georgetown to the summit but two gentle deflections called for, whereas the other demands three, of much lesser angle, in order to adapt itself to the sinuous windings of the valley.

From the summit to Guelph, the superiority of the Northern over the Southern line is so decided, as scarcely to call for comment ; it will be sufficient to say, that the former has a gentle and uniform descent, the whole fall, westwardly, from the summit to the market square in Guelph, being 171 feet : on the latter, a rocky ridge is intersected, standing up 90 feet above the general surface of the mountain top, and having a base of about 4000 feet in width.

The surveys of both these routes have been made with such care, as to warrant me in pronouncing that the following facts have been fully and fairly substantiated :—

1stly, That the Eastern Section of the Streetsville route would require two 53 feet gradients, isolated from one another, of the combined length of 4 miles, whilst the corresponding portion of the Meadowvale line shows a necessity for but one such plane, the length of which would be  $2\frac{1}{2}$  miles.

2ndly, That the Western Section of the former line would exact a maximum gradient of 70 feet per mile, for nearly 4 miles ; and 2 more miles of 53 feet ascent per mile ; whereas the Georgetown route admits of the summit being attained at less cost, in a distance of 6 miles, and on the least of the gradients above specified.

3rdly, That the amount of curvature is greater, and the character of the curves more objectionable on the Sixteen Valley route, than on that through the valley of the West Credit.

4thly, That a glance at the “ profiles ” is sufficient, without going into any calculations whatsoever, to show that, in comparing those two routes, the pecuniary interests of the company point to the one via Georgetown and the West Credit Valley : and

Lastly, As I cannot detect any probable commercial superiority, that a Railway as far South as Streetsville and Milton, (Trafalgar,) could possess over one no farther North than Meadowvale and Georgetown ; I am very decidedly of



opinion, that in every point of view the interests of the Company forbid the selection of the Southern line for the location of the Toronto and Guelph Railway ; and that therefore, as regards the ascent of the Heights, the proper route for the road is through the valley of the West Credit River.

GEORGETOWN thus established as a tangential point for the road, the question next arises, whether, from there Eastward, it will be better to take the route above described, via Silverthorn's Mills to the Humber, or to steer more to the North, so as to touch at BRAMPTON.

The trial line No. 3, which I have had run for the purpose of testing the merits of such a route, crosses the Main Credit River  $1\frac{1}{4}$  mile above Norval, where the valley of the stream, being the most favourable crossing point thereabouts, is 800 feet wide, and its water 110 feet below the Grade Line of the Road, involving the necessity of a very costly Bridge structure and a vast embankment.

This is the most unfavourable feature of the "Brampton Line," and compared with the crossing of the same River on the "Central Line," is a *very* unfavourable one ; from the Credit to Brampton village, and thence through the Townships of North Toronto and Etobicoke to the Humber, the "contour" of the ground is generally favourable for the economical construction of a Railway, and the natural outline of the surface can be judiciously conformed to without resort being had to any gradient exceeding 40 feet in the mile.

In arbitrating between this and the Central line, the chief points of difference occur, in the number and magnitude of the streams to be crossed, and the *grades* that can be obtained.

As respects length and allignement, neither can be said to have any decided advantage of the other, nor can I see that either could justly claim any commercial superiority.

The prevalent idea, that to secure the carrying trade of intermediate and neighbouring towns and villages, Railways must pass *through* them, is generally erroneous. All railways

possess a more or less extended "circle of attraction," and despite of the opposition growing out of local prejudices, and petty individual interests, the whole commerce of the region within the limits of that attraction, will, in the end, be carried on through the medium of the rail. I shall therefore confine myself simply to the *Engineering* merits of the two lines under discussion.

The Central Line crosses (between the Humber and Georgetown,) the Mimico, the Etobicoke, the Main Credit, and the West Credit Streams, the cost of each crossing ranging from £5,000 to £10,000.

The Brampton route avoids the Etobicoke altogether; or at least intersects it at a point where it has dwindled down to an insignificant brook. It also escapes the West Credit River; which upon the other route ranks as the most expensive of the crossings; the bridging on this, the Brampton line, therefore, is confined to the Mimico and the Main Credit stream, the former of no greater magnitude than on the rival line; the latter presenting a barrier of rather startling aspect, the bottom of the ravine in which the stream lies being 110 feet below "grade," and to ensure a safe and permanent crossing over which, will call for an expenditure of not less than £25,000; upon the whole, the crossings of the *four* streams upon the Central, can be effected at a considerable saving of cost over the *two* upon the Brampton Line.

Next, as regards *Grades*:—That in ascending the mountain we should be driven to adopting as steep a maximum as 53 feet in the mile, was entirely unlooked for when your project was first mooted; but that such a necessity should also exist *below* the mountain in the apparently level Township of Toronto, must at first sight appear improbable; such, however, is the fact as regards two of the routes already described, the Southern and the Central.

In overcoming the ascent of the mountain by such a gradient, I would consider a couple of miles more or less of

continuous grade as of no very material consequence, but detached and isolated inclines of that nature must *if possible* be avoided *even at an increase of cost*.

Fortunately such a possibility exists, by incurring a trifling increase of distance and no increase of outlay ; this is to be effected by adopting the **BRAMPTON ROUTE**, which in every Engineering point of view, save the chasm at the Main Credit river, is as much superior to the Central route, as I have already shown the Central to be superior to the Southern.

The portion of the above line lying between Toronto and the Humber, at Fisher's, and thence to Brampton, has still to undergo the ordeal of comparison with a line from Toronto to Brampton, via Weston. The distance from this City to Brampton by the former route is  $20\frac{1}{2}$  miles, and by Weston  $21\frac{2}{3}$  miles, showing, in point of length, a difference in favour of the Humber Line of  $1\frac{1}{3}$  miles.

But the most prominent feature on which to institute a comparison between these routes, is the crossing of the River Humber, the water of which at Fisher's is 105 feet below the grade of the road, and the Valley 750 feet wide ; at Weston, the water 55 feet below grade, and width of valley 900 feet. In other words, the crossing of the Humber can be effected for less outlay at Weston than at Fisher's, by from £8000 to £10,000.

As respects the other features of No. 4 route, the ground from Brampton to Weston is very favorable ; from Weston to the City I have had no survey made, having, through the kindness of the Engineer of the Northern Railroad, been furnished with the notes of a trial line run by them, and which shows a highly favourable Section, demanding no grades of greater elevation than 40 feet in the mile.

I refer you to the attached Estimate tables (vide Schedules A and B) for the cost of this compared with the other routes examined, and from which you will see, that it is not only least in cost per mile, but that the total cost of this, the longest of

the routes, is lower than that of any other line, the next lowest being the line to Brampton by the Humber.

I have endeavoured to place the relative merits of the several lines talked of and explored, as clearly as possible before you, and carefully weighing all the points of comparison, cannot pronounce otherwise, than, that the one that offers the greatest facilities for construction is entitled to the preference. That one is Route "No. 4," passing through Weston, Brampton, Georgetown, and Acton; its sole objectionable feature, as compared with "No. 3," (the only one of all the others that can compete with it,) being its greater length, and which is too inconsiderable to outweigh the other advantages set forth.

But there is another question, still undiscussed, that may render it advisable to leave the final decision between these routes some time longer in abeyance; I allude to the obtaining of the "right of way." Beyond all doubt, the most expensive portion of your line in that respect will be found in the Townships of York, Etobicoke, and Toronto; and whilst the question of "location" is still, as regards that Section of the route, an open one, "Releases" may be obtained on more favourable terms; or it might be, that that very question would assume so important an aspect, as to be the one on which the final judgment should be rendered.

#### As regards the ESTIMATES—

The amounts of excavation, &c., in the several lines surveyed, have been carefully ascertained, and such "margin" allowed in calculating the quantities, as to ensure the estimate being ample to cover the cost of construction.

The results of the measurements and calculations are given in tabular form in appendices A and B, herewith submitted. You will there observe, that the Weston Route "No. 4," is cheaper than the next cheapest, "No. 3," (via the Humber

and Brampton,) by £350 per mile, the cost of the former being estimated at £6350, of the latter at £6700 per mile.

Appendix D shows the number, magnitude, and cost, of the several streams and valleys to be crossed, and to which will be due upwards of one third the whole cost of graduation.

The amount of rock excavation may be considerably reduced, provided that at the lofty rock ridge near Clendinan's Mills in the Fifth Concession of Esquesing, a *Tunnel* can be substituted for a *thorough cut*, but of this I am doubtful until closer examinations have been instituted; the rock is so much "displaced" and shattered, as, I fear, to render it too unsound to admit of a Tunnel being safely resorted to; I have consequently based my estimate of this part of the work on the supposition of having to adopt the most costly expedient.

At some of the least considerable of the crossings, a saving of some thousands of pounds may probably be effected, by recourse being had to "Trestle-work" structures, of Timber, instead of the imperishable but more costly combinations of earth and stone; but in this case too, I have assumed the highest estimate, and calculated for permanent structures at all the crossings: because whatever reductions might be effected in the ways suggested, they might again be swallowed up by unforeseen casualties, from which few great public works are wholly exempt, and against which no human foresight can entirely provide.

The sum assumed to cover "Lands and Damages," has been put down from no ascertained data, as I have as yet had no reliable means of learning how far the "liberality" of the farmers along the line of road is to be counted upon; but if I have *under-estimated* this item in the cost of your undertaking, it arises from my having *over-estimated* the *patriotism* of the population with whom the Land Commissioner has to deal.

THE CHARACTERISTICS OF THE ROAD, in its completed form, will upon the whole, be favorable.

In point of directness, it will, practically, differ very little

from a straight line ; the longest of the routes exceeding but by  $2\frac{1}{2}$  miles, (equal to about 10 per cent,) an *air line* between the terminating points. Few roads, in fact, through a similar region, could show more favourable allignment. On the Eastern Section, we have tangent lines of from 8 to 12 miles in length, the curves being described by radii of more than two miles ; on the Western Section, there are two curves of 3820 feet radius, whilst the radii of the remainder will vary from one to two miles in length.

As regards *Grades*, there are no ascents *Eastwards*, or in the *direction of the trade*, to exceed 36 feet per mile ; and *Westwards*, the up grades do not exceed 40 feet, except on the immediate ascent of the mountain, where we have 6 miles of 53 feet elevation per mile, and on that portion of the route there is only one deviation from a straight line.

Appended to this report is a Table of Grades, (vide appendix C.) showing how the Gradients compare on each of the surveyed lines ; in that table, the lengths of the several lines are also given.

Before closing this report, I deem it necessary to say something with respect to the TERMINI, a question, on which, generally, there is more diversity of opinion amongst parties interested, than on any other of the many disputed points inseparable from the selection of a line of Railway. First then, as regards the

#### WESTERN TERMINUS.

The Line, the adoption of which I have recommended above, crosses the River Speed, and enters the Town of Guelph close by Allen's Mills. The Town being once fairly entered, the sooner the Terminus is reached the better :—the direction in which we cross the River, carries us into the market square, an open, roomy space, well adapted for all the purposes of a Railway station ; the same line produced,

would carry us *through* the Town on favorable grades, should it ever be found desirable to extend the road further Westward. I therefore recommend that the Market Square of Guelph be selected as the Western terminus of the road ; provided always, that the requisite facilities for adapting it conveniently to the necessary purposes of a Railway Terminus, be afforded by the Townspeople ; otherwise, the next most fitting spot for the Station would be found near the Western limits of the Town plot, in rear of the Catholic Church hill.

#### EASTERN TERMINUS.

In selecting the fittest place for the City Termination of the Road, we must look very far beyond the present time, and lay our plans with a view to extending, with the least expense and in the most convenient manner, the advantages of Railway connexion not only to the limited number of landings now existing, but also to the shippers, merchants, and others, who, beyond all doubt, will in a few years hence, have warehouses and wharves where now there is but waste ground and water.

Towards effecting this object, one thing I look upon as indispensable :—The direct connection of the Track with the Lake. Next to be considered is, in what way that can best be carried out, so as to accommodate the greatest number of the community and the greatest variety of trade.

The city of Toronto stands unrivalled amongst our inland Ports, for the fine harbourage afforded by its magnificent Bay, *accessible at all seasons* : this, joined to the rich agricultural region immediately surrounding it, and extending far away to the west and north west, together with the immense traffic to be attracted to it from without the Province, by the railways now projected or in progress, will forever render it the principal focus of the inland Marine trade of Western Canada ; with this in view, I conceive that, now, in the outset of

your railway schemes, it is of the very highest importance to the interests of the city and its connexions, that the first step in constructing a railroad terminus should be designed merely as a part of a *future* Marine Depot of vast extent, taking in, I should say, the whole navigable front of the City.

With the details of a plan for such a Depot, I am of course, not yet prepared ; they must be the result of long and careful consideration ; but I will here give a general sketch of the design I propose ; which will be rendered more intelligible by referring to the outline plan herewith laid before you, and which in its general effect, when completed, would not differ very much from the talked of " Esplanade."

The line, as I have already stated, reaches the city limits on Queen Street, (at the Toll Gate):—thence it is produced till it strikes the Lake a little west of the " Old Garrison," whence it curves so as to cross the Queen's Wharf close in shore, at which point the track should be about 5 feet above the water (the level I propose for the terminus.)

From the point of reaching the Lake, there are to be two or more parallel tracks, the inner one, that next the shore, to be appropriated to Passenger-trains only, and to be continued down to whatever point may hereafter be selected as most suitable for the Passenger Station, probably the foot of Yonge Street.

On the other track, or tracks, Freight-trains come in, and from them curved " Sidings" can branch off to each Wharf that may from time to time be constructed.

I would suggest that the water front, (I speak of course with regard to the portion still unoccupied,) instead of being formed into one continuous quay, should be occupied by projecting " Piers," or " Jetties," of about 250 feet front and depth, with " Slips" between them wide enough to admit, side by side, two vessels of the largest class, that each may lie broadside to a wharf.

In this way, the greatest possible extent of water frontage



can be secured to the city, and the whole of it placed in direct connexion with the Railways.

The cars arriving by each train for any particular forwarder or shipper, with his name, or the number of the wharf, chalked on them, can be cast off as the train passes the wharf, "switched on" to the siding, and hauled by horses down to where the vessels lie, and where by a simple arrangement of "Turn Tables" they can be laid along the front and each side of the pier, and the process of loading or discharging be going forward from three Vessels or into three warehouses at the same time.

Whether those wharves should be the property of the Company, or of the city, and by them leased out to individuals, or whether it would be better that their construction should be the result of private enterprise, will be matter for future consideration, as also the terms on which the side tracks would be laid and maintained for their accommodation. In the way above suggested, the whole front of the town can by degrees be converted into a Vast Railway Depot, unsurpassed anywhere in extent and convenience; the plan could be carried out too, without at all injuriously affecting existing individual interests, or, what is scarcely less desirable, interfering with the streets of the city.

The completion of a design such as that above proposed, *will be a work of time*, and is not to be thought of as part of your present scheme; the earlier requirements of trade will neither demand such extensive terminal arrangements as therein contemplated, nor would the estimate on which the cost of your road is based, warrant the very great outlay involved in the construction of so large a Depot.

I would however advise the construction, simultaneously with the remainder of the Road, of a double track, from the point of striking the Lake as far Eastward, at least, as the front is still Public property, and the cost of which, *per mile*,

would not much exceed the average of other portions of the work.

Further extension to accommodate existing places of business, could be effected at comparatively small outlay, the burden of which would probably be borne, at least in part, by those for whose accommodation it would be undertaken.

I think it advisable that the Engine Houses, Car Depot, Machine Shops, &c., should be situated just without the limits of the city, and from these, Freight Trains would take their final departure. A small "Service Engine" is despatched from the Engine yard to run along the water front, collect the outward bound cars from each wharf, and bring them up to where the Freight Engine is in readiness to be attached to them; the cars are there "marshalled," and the Train despatched on its destination.

There is still another question arises, in deciding on the plan and position of a terminus for the first requirements of the road.

Below the Queen's Wharf, the harbour is ice-bound for, it is safe to say, four months of the year, during which time steamers are plying on the Lake without; and probably, in the whole course of the Winter, there is not a week in which the Queen's Wharf is inaccessible to them.

To provide for the accommodation of Trade during that season, it is very essential that there should be a terminus on open water, so planned as to be a link in the formation of the general Depot already described.

Such a terminus I would propose to form, by constructing a dock in 11 feet water, with a front of from 1000 to 2000 feet in length, extending in equal portions above and below the Queen's Wharf; the water space between the dock and the shore to be formed into dry land by the material which must necessarily be excavated from the cut through which the Track is to be conducted to the water level.

Before closing upon this subject, I would beg leave to re-

peat, that as regards terminal accommodations, the wants of trade will quickly make themselves heard, once your road is in operation.

Your wisest policy will be, to keep pace with, rather than anticipate, these wants, and to limit the first expenditure on the city terminus within narrow bounds. Many Railroad companies have crippled their resources by sinking too much capital in stations, buildings, &c., and the premature expenditure of 20, 30, or £50,000 on a road of under 50 miles in length, could not fail to have a depreciating influence on its Stock.

I have not as yet had time to collect any statistical information, to show the present and probable prospective resources of the country on and in connection with the line of road, but at some future date, when I come to lay before you a report on the final "location" of the work, I trust to be able to show from the census returns of the counties, that the project cannot fail of being a safe investment.

In order that the work may be put under contract this season, the "locating" of the Line, and surveys of the lands required for it, should be prosecuted forthwith.

The General Railway Act would seem to require the completion of the latter branch of the work, before the grading can be commenced.

I am,

Sir,

Very respectfully yours,

W. SHANLY.

( A )

*Comparative Estimates of Cost of Grading.*

NAME OF ROUTE.	Length in Miles.	EXCAVATION.		Masonry.	Clearing.	Grubbing.	Bridge Superstruc.	Total Cost.		Average Cost per mile.
		Earth.	Rock.					£	s. d.	
1 Southern.....	46 $\frac{9}{100}$	cub. yds. 3,356,000	cub. yds. 400,000	c. yds. 32,400	acres. 200	rods. 8000	feet. 500	281316	13 4	£ 6115
2 Central.....	46 $\frac{18}{100}$	2,980,000	125,000	31,200	200	8000	1025	207200	0 0	4500
3 { Brampton by } { Humber.... } { } 4 { Brampton by } { Weston..... }	46 $\frac{31}{100}$	2,700,000	125,000	37,200	200	8000	865	205170	0 0	4400
	47 $\frac{80}{100}$	2,500,000	125,000	34,800	200	8000	985	193983	6 8	4100

(B)

*Comparative Estimates of Total Cost of Road.*

NAME OF ROUTE.	Length in Miles.	Gravitation and Bridging.	Superstruct.	Lands and Fences.	Termini.	Contingencies.	Total cost	Average Cost per mile.
1 Southern, or Streetsville and Milton..	46 $\frac{49}{100}$	£ 281,316	£ 68,735	£ 12,000	£ 10,000	£ 15,000	£ 387,051	£ 8414
2 Central or Meadowvale & Georgetown	46 $\frac{18}{100}$	207,200	68,050	12,000	10,000	15,000	312,250	6760
3 Brampton by Humber .....	46 $\frac{31}{100}$	205,170	68,500	12,000	10,000	15,000	310,670	6700
4 Brampton by Weston .....	47 $\frac{49}{100}$	193,963	70,000	12,500	10,000	15,000	301,463	6350

The above Estimates are based on terminating the Road at the Queen's Wharf.

(C)  
Comparative Table of Grades.

		GRADES WESTWARD.											
Gradient per Mile.	Feet.	SOUTHERN ROUTE.				CENTRAL ROUTE.				BRAMPTON BY THE HUMBER			
		Length Miles.		No. of Planes.	Length Miles.		No. of Planes.	Length Miles.		No. of Planes.	Length Miles.		No. of Planes.
		Ascendg.	Descendg.		Ascendg.	Descendg.		Ascendg.	Descendg.		Ascendg.	Descendg.	
70.....	1	4.	.....	1	.....	.....	2	.....	.....	1	.....	.....	1
53.....	1	2.75	.....	1	9.	.....	1	6	.....	.....	.....	.....	.....
47.....	1	2.	.....	1	1.50	.....	1	.....	.....	.....	.....	.....	.....
40.....	3	5.75	.....	1	2.50	.....	4	8	.....	.....	.....	.....	3
30 to 40.....	2	4.	.....	4	8.25	.....	1	.....	.....	.....	.....	.....	3
20 to 30.....	2	3.	2.	4	1.50	5.25	4	11	3.50	6	.....	.....	9
20 and under.	5	9.25	5.50	4	4.75	5.50	4	6.75	4.75	5	.....	.....	7
Level.....	4	.....	8.35	7	.....	7.93	7	.....	6.31	.....	.....	.....	6
		30.75	7.50		27.50	10.75		31.75	8.25		27.75	11.25	
			8.35			7.93			6.31			8.50	

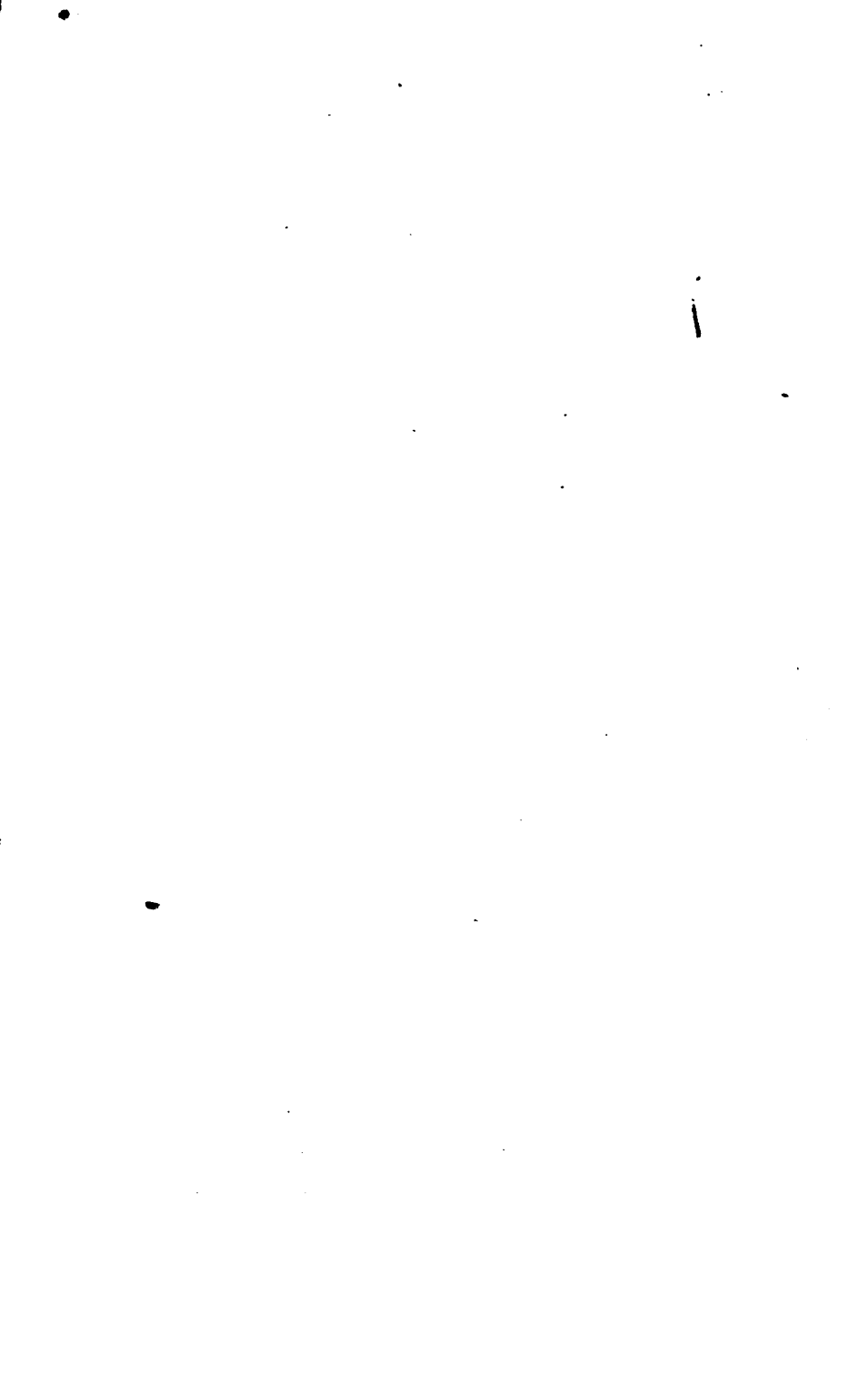
Comparative Table of Grades—continued.

		GRADES EASTWARD.											
Gradient per Mile.	Feet.	SOUTHERN ROUTE.				CENTRAL ROUTE.				BRAMPTON BY THE HUMBER			
		Length Miles.			No. of Planes.	Length Miles.			No. of Planes.	Length Miles.			No. of Planes.
		Ascendg	Descendg	Level.		Ascendg	Descendg	Level.		Ascendg	Descendg	Level.	
70.....	1	.....	4.	.....	1	.....	9.	.....	1	.....	6.	.....	1
53.....	1	.....	2.75	.....	5	.....	1.50	.....	3	.....	8.	.....	3
47.....	1	.....	2.	.....	1	.....	2.50	.....	6	.....	.....	.....	9
40.....	3	.....	5.75	.....	1	.....	8.25	.....	5	.....	.....	.....	7
30 to 40.....	2	.....	4.	.....	4	.....	1.50	.....	6	.....	.....	.....	9
20 to 30.....	2	2.	3.	.....	4	5.25	4.75	.....	5	3.50	6.75	.....	7
20 and under.	5	5.50	9.25	.....	4	5.50	.....	7.93	5	4.75	.....	.....	6
Level.....	4	.....	8.35	.....	7	.....	.....	.....	5	.....	6.31	.....	9
		7.50	30.75	8.35		10.75	27.50	7.93		8.25	31.75	6.31	
										11.25	27.75	8.50	

( D )  
*Comparative Estimate of Cost of Bridging Streams and Embanking Valleys.*

WESTON AND BRAMPTON ROUTE.									
NAME OF STREAM OR VALLEY.	Widths.		NAME OF STREAM OR VALLEY.	Amount. £ s. d.	Extreme depth ft.	Embankment. cub. yds.	Bridging.		Amount. £ s. d.
	Frm ft.	To ft.					Masonry. c. yds.	Timber Superstr. feet.	
Peac'k Rav.	1000	2000	BlackCreek	9166 13 4	50	200,000	.....	.....	10533 6 8
Humber ....	700	400	Humber....	25483 6 8	105	280,000	9000	175	18662 10 0
Mimico.....	5000	3500	Mimico ....	15137 10 0	36	243,000	2000	125	10004 3 4
Etobicoke ..	3200	1800	Etobicoke ..	5366 13 4	25	68,000	1500	.....	5366 13 4
Credit .....	3200	300	Credit .....	31941 13 4	110	313,000	14000	175	31941 13 4
Georgetown	2500	800	Georgetown	16200 0 0	62	288,000	2000	.....	16200 0 0
West Credit	1200	500	West Credit	5933 6 8	40	64,000	2000	.....	5933 6 8
Eramosa.....	2500	1000	Eramosa.....	12716 13 4	42	140,000	3000	225	12716 13 4
Speed.....	1200	400	Speed.....	5866 13 4	30	32,000	2000	175	5866 13 4
				127812 10 0					117925 0 0





7

# PROCEEDINGS

OF THE

## EIGHTH ANNUAL GENERAL MEETING

OF THE PROPRIETORS OF THE

## ST. LAWRENCE & ATLANTIC

## RAIL-ROAD,

*HELD IN MONTREAL, ON 19th JANUARY, 1853;*

WITH

REPORTS OF THE DIRECTORS AND CHIEF ENGINEER.

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**MONTREAL :**

PRINTED BY JAMES POTTS, HERALD OFFICE.

1853.



# Saint Lawrence and Atlantic Railroad Company.

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THE Annual General Meeting of the St. Lawrence and Atlantic Railroad Company, was held at their office, in the city of Montreal, on Wednesday, the 19th January, instant, and was attended by a large and influential number of the Shareholders.

Mr. Sheriff BOSTON was called to the Chair, and Mr. D. LORN MACDOUGALL was requested to act as Secretary.

Messrs. J. H. R. MOLSON and Mr. R. ESDAILE were nominated Scrutineers.

Mr. HOLMES, the Vice-President, in the absence of the President, Mr. GALT, then submitted the Report of the Directors for the past year, together with the Reports of the Chief Engineer and Superintendent of the Company, on the state, progress and prospects of the works.

Mr. DELISLE moved, seconded by Mr. H. L. ROUTH, and it was carried unanimously:—That the Reports now read be received and adopted.

Mr. SHUTER moved, seconded by Mr. SMITH:—That the same be printed in English and French, and distributed to the Shareholders.

MR. HOLMES then read a Report of the Auditors for the past year, and the same gentlemen, Messrs. W. EDMONSTONE and R. ESDAILE, were re-elected for the current year, with authority to employ such assistance as may be necessary.

The Election of Mr. HOLMES, as a Director, in the place of the Hon. A. N. MORIN, resigned, was confirmed.

It was then moved by Mr. MURRAY, seconded by Mr. ROUTH, and carried unanimously:—That the sum of one thousand pounds be tendered to the President (A. T. Galt, Esquire,) in acknowledgment of his efficient services for the past year.

It was then moved by the Hon. JOHN YOUNG, seconded by A. M. DELISLE Esqr., and carried:—That whereas the construction of a Bridge across the St. Lawrence, connecting its Southern bank with the Provincial Canals by Rail, has become a matter of imperative necessity to the best interests of this City and of the Province:—this meeting is of opinion that no time should be lost by the Directors of this Corporation, in appointing some of their number, especially to communicate with the Directors of the Grand Trunk Railroad, as well as with other Corporations, and report, as speedily as possible as to the best means of commencing and constructing this important public work.

Thanks were then unanimously tendered to the directors, for the able and satisfactory manner in which the affairs of the Corporation have been conducted.

The Chairman having vacated his seat, received the thanks of the meeting for his able conduct in the chair.

J. BOSTON, Chairman.

D. L. MACDOUGALL, Secretary.

# THE EIGHTH ANNUAL REPORT

*Of the Directors to the Stockholders of the St. Lawrence and Atlantic Railroad Company, at the General Meeting, held at the Office of the Company in Montreal, on Wednesday, the 19th January, 1853.*

IN the year which has elapsed since the last General Meeting, the works of the Company have been carried forward with every intention, on the part of the Directors, that the Railway should be completed to the point of junction with the section of the Sister Company, early in the ensuing summer. The progress effected, and the arrangements which have been made for the portion of the work remaining to be completed, warrant the Directors in the belief that this intention will be realized; and that the direct communication between Montreal and the Atlantic at Portland, will be opened in full time to secure to the Company all the advantages of the Passenger Traffic which the ensuing summer months will offer, as well as of the transportation of all the produce of the West which may be demanded in the course of the next season by the Eastern markets, destined to be supplied hereafter by this route.

The Stockholders are aware that the Third Section of the Railway, extending from Richmond to Sherbrooke, was opened for the employment of the public on the 11th of September last, the occasion being honored by the presence of His Excellency the Governor General and a large portion of the Provincial Legislature then in session, the President and several Directors of the Atlantic and St. Lawrence Railroad, the Mayor and Corporation of the City, and other distinguished guests. Since that time an extent of 95 miles of road has been in full operation; supported by a highly encouraging amount of local traffic, both in passengers and goods. The Fourth Section, extending from Sherbrooke to the Province Line at the intersection of the Coaticook River, a distance of 31 miles, was early in the season divided into subsections, and contracted for at reasonable prices.

For the progress made in this section—its present situation, and the various arrangements for promoting its completion at the earliest practicable date,—the Directors will refer more particularly to the Report of the Chief Engineer, which will be presently offered for the consideration of the Shareholders.

At the present session of the Legislature an amendment to the Acts of Incorporation of the Company was applied for, to the effect of extending the Company's powers, and permitting the application of its funds to the construction and working of the section extending from the Boundary Line of the Province to Island Pond in the State of Vermont, the point to which the Atlantic and St. Lawrence Railway is extended. The proprietors are aware, that looking to the plain advantages accompanying the adoption of the Island Pond route, both in respect to the future economical working of the road, and to the means which this route secures to the Com-

pany of hereafter participating in the traffic of the Connecticut Valley northward, it was considered advisable that this short section should be undertaken by the Company. Accordingly, although the powers requisite to be obtained from the Legislature of Vermont, have not yet been received, means were found for entering into a secure contract for the construction of this part of the line for account of the Company, the work to be completed by the 1st of July next. The work of the Island Pond section is generally light, and the contractor evinces the fullest confidence that it will be duly completed within the time specified, and correspondingly with the remainder of the Company's road on the northerly side of the Boundary Line.

The Sister Corporation of Portland have evinced the greatest energy in the prosecution of their share of the undertaking. Their Trains have been for some time running daily to the Connecticut River at Northumberland.— Their road bed is nearly completed throughout the distance to Island Pond, and their Contractors are now proceeding with the laying of the Track to that point. There is no doubt of their having their entire line completed for the passage of locomotives within a very short period.

The resources from which the Company have met the very large expenditure necessarily incurred in thus vigorously prosecuting their works, have been supplied mainly by Her Majesty's Provincial Government. The sum received within the year on account of the claim of the Company under the Provincial Guarantee Act, is shown by the accompanying statement to have been £310,524 9s. 6d. The first issue of Provincial Guarantee Bonds for account of the Company, was £400,000 Sterling, of this £100,000 Sterling were received in 1851; £255,000 Sterling, as just stated in 1852, the balance remaining in the hands of the Government on 30th November last, having been accordingly £45,000 Sterling. This balance has been since paid to the Company, and at the same time, the total amount of the claim for Public aid has been extended from £400,000 Sterling to £467,500 Sterling, being one-half an admitted total ultimate cost of the Railway and its Equipment, amounting to £935,000 Sterling, or £1,137,583 6s. 8d. Currency.

The Island Pond section has been provided for, by means of a distinct loan, raised in England, on Sterling Bonds, at 7 per cent. Interest, for the amount of £90,000 Sterling. Of this amount £50,000 Sterling had been realized on 30th November last, from which the Disbursements for the Section up to that time, had been met. The balance of the Loan has been since received, and is now held to meet the cost of the remaining works. Since the close of the financial year, the President of the Company has proceeded to London to negotiate for the Company the sale of the balance of the Provincial Bonds to be received, amounting as before mentioned, to £67,500 Sterling, and he will probably be enabled, at the same time, to effect arrangements for the Loan on favorable terms, of such further sum as it may appear requisite to provide for effectually completing and equipping the Railway for the performance of the anticipated traffic.

The Company have punctually met all liabilities for interest on their loans, having found in the receipts realized from the traffic for the year, resources nearly sufficient for this purpose.

By a reference to the Balance Sheet, which is herewith submitted, it will be found that the nett receipts of the Railway for the years 1850, 1851, and 1852 have amounted in the aggregate to - - - £41,877 6 9  
 While the total amount of Interest accrued and paid by the Company, on their existing Funded Debt, under all the heads of Loans, Bonds and Debentures, is - - - £42,213 3 6

A great part of the debt on which this interest has accrued, however, has been incurred for the construction of the part of the road which is still unproductive, from being incomplete. The cost of the Third Section which, up to the 30th November, had been in operation less than three months—is £170,000. The direct outlay on the Fourth Section, over which the locomotive has not yet passed, amounts at the present time, to upwards of £150,000. If the interest accruing on these sums for their respective periods of time were distinguished from that on the debt strictly borne by the portion of the road producing returns from its employment—the total charge against the income of the road, would be less than £30,000—and there would remain a surplus of income applicable to the payment of a fair dividend on the shares paid up and constituting the nett Capital Stock of the Company.

While, however, the Railway is still in course of construction, and while it may be yet necessary to take up further moneys for its final completion, the Directors have been unwilling to proceed in the recommendation of the payment of a Dividend on the shares, without a previous opportunity of submitting the circumstances to the proprietary. In an undertaking of this nature and extent, it is desirable that the income realised should be at all times strictly distinguished from the capital invested in the extension of the work; and the relations borne by the Company towards the Provincial Government, furnish perhaps, an additional reason for attention to this point. The former half of the Railway,—the portion which has produced the income of the three past years—has borne the charge of all the interest accrued in the course of its construction,—as well on the subscribed shares in the capital stock which supplied the first resources, as on the debts next raised in addition. The latter half of the line might justly be made to support a similar charge, as a part of its cost. But it is perhaps most advisable to make no change in the application of the resources until after the opening of the entire line in the approaching summer. The Company has the fairest prospect of being then finally relieved from the doubts and difficulties which attended the former part of its course, and of obtaining a certain and immediate view of a fair return on the entire capital invested in its undertaking. The proprietary may then, equally as now, participate in all the advantages which shall have been realised—whether prior to, or after, the present period; and a forbearance evinced in the meantime must tell favorably on the credit of the Corporation, whenever its affairs may be enquired into.

The Shareholders may properly be congratulated on the amount of local traffic which has presented itself as each section of the Railway has been opened for public use. The gross receipts for the year, arising from nine months use of 72 miles of road extending to Richmond, and three months use of 96 miles extending to Sherbrooke, furnish an average gross return of £560 from each mile per annum. If it is borne in mind that upon the entire completion of the road, a return of £1000 per mile will afford to the Shareholders



in the Company, after deduction of all expenses—a very liberal dividend—it will be felt that the local business already realized, has left to be provided by the future through traffic of the line, a balance of returns by no means disproportionate to its importance.

In the original calculations and estimates on which the work was projected, the traffic belonging to the districts in Canada through which the Railway is now carried, was lightly considered; and never was allowed, in comparison with the transportation anticipated between the St. Lawrence and the Ocean, a ratio higher than as one to three. It has already amounted to more than one-half the whole traffic required to cover a larger expenditure than was originally contemplated.

It is true that the works of the Company in progress at the Eastern end of the Line, have to some extent swelled the traffic by their demand for supplies and necessities from this part of the Province. But on the other hand, the business of the older sections steadily increases, and there is every reason to believe, that if a part of the present support of the road should be withdrawn on the discontinuance of the construction works of the Company, its place will be more than supplied from new sources daily declaring themselves.

The transportation of firewood for the city, and of sawn lumber of all kinds, is proceeding on an extensive scale. Squared Pine Timber, it is found, can be advantageously brought forward by the road for export to the United States; and a large quantity is being prepared with this object. Birch and other hard woods, with staves, oars and handspikes, are being manufactured in the Forests of the Eastern Townships, for conveyance to Quebec, *via* the Railway to Longueuil. In Kingsey, induced by the means of conveyance offered, extensive slate quarries have been opened, and are promised a large demand. These are only a few of the numerous cases in which the construction of the Railway is itself the origin of a production, furnishing valuable traffic in return.

It is premature to adopt an estimate of the future through-business that will offer, when the entire road shall be in operation. But it must necessarily far exceed what its projectors ventured to anticipate when the scheme was placed before the public, eight years since. The circumstances under which this line will command, over all others, certain advantages in supplying the produce of the West to the State of Maine and the British Provinces, remain the same, while those parts of the Continent have largely extended their resources, and necessarily, their future demand for this produce. In the means of competing for the import business of Canada, the road must find facilities not hitherto counted on, in the growing importance of Portland as a commercial city and port, and in its adoption by Her Majesty's Government as the winter resort of the Canadian steam-ships.

It is, perhaps, by no means too sanguine an anticipation, that the business between Montreal and Portland will exceed its original estimate, as much as the way traffic to Sherbrooke and the intermediate stations has exceeded all the expectations that could be formed regarding it.

The gross receipts for the year ending the 30th November, 1852, have been :—

From Passengers, - - - -	£11,770	11	1
From Freight, - - - -	32,341	6	7
	<u>£44,111</u>	<u>17</u>	<u>8</u>

Of Passengers the total number carried for all distances, has been :—

First Class - - - -	18,952	
Second Class - - - -	34,673	53,625

Making a daily average of

First Class - - - -	60	
Second Class - - - -	111	171

and furnishing an average daily receipt of £34 17s.

In the case of a newly constructed Railway, and under circumstances such as those of the Company, the ratio of the working expenses could not be expected to compare favorably with that of old consolidated roads having a large proportion of passenger support.

Notwithstanding the disadvantages under which the Company at present suffer, however, the expenses of the year—under all the heads of Maintenance of Way and Works, Motive Power and Carriages, Fuel and Oil, Salaries and Wages, Ferriage across the St. Lawrence, and incidental expenses—have amounted to £19,996 1s. 6d., being a proportion of the gross receipts equal to a fraction only more than 45 per cent., and leaving, as the nett income of the road for the season, £24,115 16s. 2d.

The accompanying balance-sheet presents a view of the Company's affairs on the 30th of November last. They may be represented in a different form, as follows :—

The total cost of the Fixed Property of the Company, including Site, Road-bed, Superstructure, Rail, Bridges, Buildings, Wharves, and Fixed Machinery has been.....	£928,096	10	8
The moveable Property, being the Engines, Carriages, Snow-ploughs, &c.....	69,608	18	10
Materials on hand.....	6,242	10	7
	<u>1,003,942</u>	<u>18</u>	<u>1</u>
Less certain incidental receipts, as forfeited instalments, &c 7,703	4	3	
Total outlay,.....	<u>£996,239</u>	<u>13</u>	<u>10</u>

The sources from which this amount has proceeded, are :—

1.—Funded Debt—Bearing 6½ cent. interest,.....	£536,668	13	4
Bearing 7½ cent. interest,.....	56,955	15	11
	<u>593,623</u>	<u>9</u>	<u>3</u>
2.—Unfunded Debt—Outstanding Bills, Accounts, &c. £165,852	3	11	
Less Funds in hand, or to be immediately received,	98,243	13	4
	<u>67,609</u>	<u>10</u>	<u>7</u>
3.—Shares—Preferential.....	125,000	0	0
Original,.....	210,008	14	0
	<u>335,008</u>	<u>14</u>	<u>0</u>
	<u>£996,239</u>	<u>13</u>	<u>10</u>

In connection with the question of the ways and means provided for completing the Railway and its equipment in a satisfactory manner, the Directors may again refer to the Balance Sheet of the Company's Books hereto appended. The unfunded debt existing on the 30th November last, amounted to £165,000,—and the estimate of the work at that time remaining to be executed up to the opening of the line for traffic, including a large equipment now in preparation, was about £225,000. On the other hand there were funds in hand amounting to £44,000 and a balance in the hands of Her Majesty's Government, which has been since received, amounting to £54,000.—The portion of the Island Pond Loan not then realized, but since received also, was £49,000. The balance of the Company's claim for the provincial aid, as now extended, is £67,500 Sterling, or about £85,000 Currency. The Directors have no doubt of their ability, through the assistance of the President of the Company already mentioned as being now in London, to negotiate the Company's Bonds for a sum corresponding to the Bonds of the Provincial Government, which he is authorized to dispose of. Nor have they any grounds to doubt that with this further provision in the form of loan, the remaining resources of the Company will be quite sufficient to carry forward the works to their completion, so far at least as to permit the railway to show fairly, the result which is to attend its opening for the traffic between the St. Lawrence and the Atlantic Ocean.

If, indeed, the promises of business which are now offered to the road be realized, it will be necessary to provide a more extensive equipment in engine and freight carriages, than has yet been contemplated, and farther accommodations must be supplied in Station buildings and storage. The proprietary will be not unwilling under such circumstances to extend the total cost of the railway, by such necessary additions to its intrinsic value. The provision of the requisite resources for the purpose will be rendered easy by the improving productiveness of the road.

The year just elapsed has seen a vigorous commencement of the works of the Quebec and Richmond Railway. The early completion of this valuable connection of the road may now be considered certain; and the traffic of Quebec and its extensive District, as well as all the Southern Shore of the St. Lawrence beyond Richmond, may be looked for to swell the future receipts of one branch or the other of the Company's Line: from Richmond to Longueuil, or from the same point to Island Pond, according as its course may be to the West or Southward.

The European and North American Railway offers also the the fullest promises of being early executed, to the effect of securing the Company's Road in the business of the Lower Provinces, and the future passenger travel between Europe and Western America. The establishment of the Screw Steamship Line, making Portland the Winter port of arrival and departure, will prove only the commencement of an enterprise which the energy of that city will carry forward. The Charter granted to the Grand Trunk Railway makes this work a certainty within the shortest period required for its execution. Almost as soon as the Company's undertaking can be fully in operation, with the means to appropriate all the advantages which will become open, it will be found to constitute a main connecting link in a chain of railway communication extending from one extremity of the Province to the other,—join-

ing the St. Lawrence to the ocean at Portland, a city and port offering the finest accommodations for an extensive trade,—and stretching along the front of New Brunswick, through Nova Scotia to Halifax, the port of the American Continent, the nearest to Europe,—while on the West the same great line is already extended to lake Michigan and the Mississippi, with the full appearance of being destined to be limited in that direction, only by the limits of the Continent,—the shore of the Pacific Ocean.

There is in this magnificent system one necessary part not yet definitely provided for. The practicability of a bridge across the St. Lawrence at Montreal, is no more a question. But it is yet undetermined under what arrangements the undertaking shall be carried out. It will be of the first importance to this Corporation, and to all other similar interests, and particularly to the city of Montreal, that the bridge when constructed, be preserved from monopoly or exclusive occupation. Open to free employment for the purposes of the road, a bridge would be entitled to a handsome contribution as rent, from every Railway having access to it; and the contribution would be willingly paid for the convenience and security which it would afford over the present uncertain and expensive Ferry. But no saving aimed at in the amount of the annual contribution could make up for such disability as the Company may be laid under in the case of an uncontrolled possession of the bridge by adverse interests. The Directors takesuch a view of the future business of the St. Lawrence and Atlantic Railway, as to feel induced to believe, that, rather than to be excluded from the fairest possible competition for the transportation of the produce of the great West, hereafter to flow towards this city, it would be preferable that the Company should itself undertake the work.

The Directors who retire in their turn, on this occasion, are Mr. Stayner, Mr. Torrance and Mr. Larocque, all of whom are eligible for re-election. Under the circumstances of the Hon. Mr. Morin's resignation of his office of Director, in May last, the Board, on the 2nd June, elected Benjamin Holmes, Esq., to fill the vacancy. It is for the proprietary to confirm this election, if they shall see fit.

BENJAMIN HOLMES, Vice President.

# BALANCE SHEET

*Of the Books of the St. Lawrence and Atlantic Railroad Company,  
at 30th November, 1852 :*

Dr.				Cr.			
<b>SHARES—</b>							
Capital Stock.....	£353,175	0	0	Outstanding Instalments. £	31,877	9	1
“ Preferential....	125,000	0	0	Bills Receivable.....	11,019	10	5
<b>FUNDED DEBT—</b>				Open Accounts.....	1,532	5	10
The Seminary.....	25,000	0	0	Banks and Bankers .....	42,669	3	8
The Land Company....	25,000	0	0	Provincial Guarantee Bonds	54,042	3	10
Her Majesty's Governm't	486,666	13	4	Redeemed Stock and Bonds	150,675	0	0
Island Pond Loan .....	56,955	15	11	Construction 1st Section.	263,122	0	7
<b>UNFUNDED DEBT—</b>				2nd do .	281,848	5	8
Bills Payable.....	162,081	12	5	3rd do .	168,736	18	11
Land Bonds.....	1,630	10	10	4th do .	148,636	5	11
Outstanding Accounts.	2,140	0	8	Island Pond do .	22,993	5	11
Contract Contingency F'd	50,405	13	6	Total Incidental Expenses	42,759	13	8
Forfeited Instalments ..	8,039	1	0	Equipment.....	69,603	16	10
Lease of the Road, 1850	5,500	0	0	Materials on hand.....	6,242	10	7
Nett Income, 1851	12,261	10	7	Interest on Funded Debt.	42,213	3	6
Do 1852	24,115	16	2				
	£1,337,971	14	5		£1,337,971	14	5

A. T. GALT, President.

A. C. WEBSTER, Treasurer.

St. Lawrence & Atlantic Railroad Co., }  
30th November, 1852. }

ENGINEER'S OFFICE,  
St. Lawrence & Atlantic Railroad Company,  
Montreal, 17th January, 1853.

SIR,—Since I had the honor of submitting the last Annual Report on the progress of the works on the road, much has been done towards securing the final completion of the enterprise.

The road was opened for traffic on the 11th day of September last.— Since that period the track has been laid, and the road is now in running order as far as Lennoxville, a distance of 99½ miles from the Longueuil Terminals. Beyond that point all the works connected with the formation and grading are in a forward state. The earthwork on the greater portion of the distance between Lennoxville and the Boundary Line, is so far completed, as to permit the laying down of track at the earliest period of the ensuing season. At other points, where the excavations and embankments are unusually heavy, large forces are employed, and all necessary exertion is made to secure their completion in sufficient time to prevent delay in laying down the track.

To secure the opening of the road at as early a period as possible, arrangements have been made to haul the iron by sleighs to two different localities beyond Lennoxville, namely, to Waterville and Coaticooke. This is done in order to commence the laying down of track at two points simultaneously with that from Lennoxville onward, and thus, instead of having next Spring to supply iron for 27 miles of track from one point only, the material will be delivered at three points, and the work divided into sections, each not more than 9 miles in length, and all provided with a sufficiency of material previous to the operation of laying track being commenced.

The cross-ties are contracted for, and the contractor has undertaken to have them delivered and distributed along the line, while snow is on the ground.

The requisite supply of chairs and spikes is also provided, and arrangements made for their delivery at the several points.

The delivery of materials at the various points along the line will not only secure a much earlier completion of the road, but will permit the ballasting to be proceeded with, where necessary, at a period sufficiently early, in my opinion, to secure an uninterrupted operation of the road next fall, without which, from the character of the soil at several places, and great height of embankments, difficulties would be experienced.

The time set for the completion of the road to the Boundary Line is the 1st July next; with the present arrangements carried out, unless contingencies occur not now foreseen, I am of opinion the work will be completed.

On the portion of the road between the Boundary Line and Island Pond, in the State of Vermont, a distance of 15½ miles, the progress until recently has not been such as to place the completion of that section, simultaneously with the one within the Boundary, beyond a doubt.

The principal cause of the delay is attributed to the undivided attention the contractor, Mr. John M. Wood, had to bestow on the section of the road South of Island Pond (towards Portland,) and which he is bound to complete this Winter. By great exertion on his part, this will be accomplished. I have every reason to believe, that, by placing a sufficient force of men on the section North of Island Pond, with the additional facilities of bringing in sup-

plies and tools, which the completion of the Railway from Portland to Island Pond will secure, that work will also be finished by the 1st of July next; the forces employed have lately been increased, the character of the work to do is light, and the material is of the most favourable kind for working. The Contractor has been made aware of the necessity there exists for the work being completed by the time here stated, and has given every assurance that he will not fail to do so. Mr. Wood's well-deserved reputation for ability and punctuality, and the great personal interest he has in the final completion of the entire road, irrespective of the claims upon him by the contract he has entered into; will cause him to use the utmost exertions to fulfil his engagements, and, I have every reason to believe, with success.

I beg to submit, for your information, the quantities of work done, and remaining to be done, on the section of the road between the Terminus at Longueuil and the Boundary, as well as on the division of the road between the Boundary Line and Island Pond:—

### STATEMENT

Of work done, and remaining to be done on the Road from Longueuil to the Boundary Line :

Description of Work.	Total quantity of work done on the Road.	Quantity of work done during the past year.	Quantities of work remaining to be done.
Earth excavation hauled into embankment.....	5,218,174 C yds.	2,004,221 C yds.	437,989 C yds.
Rock excavation.....	262,543 do.	132,749 do.	19,676 do.
Masonry in Bridges.....	37,531 do.	7,834 do.	2,100 do.
Masonry in Box Culverts.....	55,139 do.	31,768 do.	500 do.
Masonry in Arched Culverts.....	8,937 do.	8,269 do.	500 do.
Superstructure of Bridges.....	3,118 do.	739 L. ft.	473 L. ft.
Timber & Plank in foundations.....	2,366,634 ft B. m.	898,868 ft B. m.	
Rip. Rap. Wall.....	74,859 yards.	49,222 yards.	1,250 yards.
Track laid including Sidings.....	103½ miles.	30 miles.	28 miles.
Ballasting.....	233,025 C yds.	191,110 C yds.	326,000 C yds.
Iron.....	13,100 tons.		

### STATEMENT

Of work done, and remaining to be done on the Division of the road from the Boundary Line to Island Pond.

Description of Work.	Total Quantities of work on the division.	Total Quantities of work done at 30th Nov.	Quantities of work remaining to be done.
Earth excavation hauled into embankment.....	744,810 C yds.	195,435 C yds.	549,375 C yds.
Rock excavation.....	53,000 do.	10,634 do.	42,366 do.
Masonry on Bridges.....	884 do.	221 do.	663 do.
Masonry on Culverts.....	3,250 do.	1,648 do.	1,602 do.
Superstructure of Bridges.....	180 L. ft.	.....	180 L. ft.
Timber & Plank on Foundations....	82,206 ft B. m.	42,035 ft B. m.	40,171 ft B. m.
Rip. Rap. Wall.....	1,500 C yds.	288 C yds.	1,212 C yds.
Iron.....	.....	.....	1,700 tons.
Laying of Track.....	.....	.....	17 miles.

Since the date of my last Annual Report several new buildings have been constructed on the line of road for the accommodation of Freight and Passenger business, and the housing of Engines and Cars.

At Longueuil another addition has been made to the engine-house, affording accommodation for 4 more locomotives, and a brick carpenter shop, with sheds, for repairs of carriages, is in progress.

At Sherbrooke a commodious brick Station-house 200 feet long and 60 feet wide, and an engine-house 150 feet diameter, affording sufficient space for 20 locomotives, have been built.

Foundations are prepared, and all the material delivered, for a station-house at Richmond, similar to the one at Sherbrooke. A way and water-station have also been constructed at Lennoxville, and commodious wood-sheds have been put up at all the stations on the line. Arrangements have also been made to construct passenger, freight and water stations, at Coaticook and other points on the road South of Lennoxville. They are to be completed in time for the opening of the line.

In addition to the buildings here enumerated, 5 double brick dwellings have been built on the Company's grounds at Longueuil, for the accommodation of parties in the Company's service; some of them are already occupied, and as the want of accommodation was severely felt by those employed on the Company's works, I have no doubt their construction will prove alike beneficial to the Company and to their numerous *employees*, who will be able to avail themselves of the comfortable accommodation afforded by them.

Arrangements have been perfected for the construction of a station at the junction of the roads at Island Pond. The construction of the building and its superintendence, have been most liberally undertaken by the sister Company, and the station-house, 200 feet in length by 60 in width, is to be completed by the 1st of July next.

Arrangements are in progress to secure the construction of a turn-table, and sufficient accommodation for eight or ten locomotives by the time the road is opened for through traffic. The buildings proposed to be erected at Island Pond are to be of wood, and though containing requisite accommodation for the despatch of business, still, in their character, and when compared with the principal buildings devoted to that purpose on this side of the boundary line, they will be considered as temporary.

The difficulty that exists in bringing to that locality materials for permanent buildings, and the limited amount of local business there, until the resources of that section of the country are developed, as well as the proposed arrangements for the through business, which is to be such as not to require extensive transshipment at that point, all combined to the adoption of the present plan; should it at any future time be found advisable to construct permanent buildings, the present plans are so arranged, as to admit of its being done without interfering with the operations of the road.

The increased traffic in cord wood, lumber and square timber, and the prospects of a still greater increase, have rendered the construction of additional sidings necessary. Since the date of last Annual Report two extensive sidings have been constructed and opened for use. One at Belœil, and the other at the 7th Range East of St. Hyacinthe. Judging from present appearances, the expenditure will, in my opinion, prove beneficial to the interests



of the road, and the additional facilities afforded will tend to foster that description of traffic which already forms an important item in the receipts of the road.

A large addition has been made to the track accommodation at the Company's Terminus at Longueuil, new tracks have been laid to the North and South of the Main Line of Rails affording greater room for the delivery of cord wood, lumber &c., and for placing carriages, which are not in use, under repair.

An extensive snow fence is in course of construction, along the line, near the Longueuil Terminus. This has been found necessary to protect the road from the heavy drifts of snow which that portion of it is subjected to, and which, by means of the fence, will, in a great measure, be prevented.

The ballasting of the Road between Longueuil and Sherbrooke was prosecuted during the entire of last season, without interruption. From the scarcity of proper material, the section between Longueuil and St. Hyacinthe is ballasted with sand; sufficient of that material, is now placed to prevent the clay from working up, but it will require a coating of gravel before the road bed can be considered as permanently secure from the effects of wet and frost—this material will have to be brought from a point about 8 miles East of St. Hyacinthe. From thence to Richmond, Sherbrooke, and Lennoxville, ballasting, where put on, is generally of a superior quality of gravel, forming a road bed that will require but little attention to keep it in good order.

From Lennoxville, to within 10 miles of the Boundary Line, the road bed will require heavy ballasting. Gravel is found in abundance at both extremities, and there will be no difficulty in accomplishing the work in one season, to a sufficient extent at least to make the road safe to be run over. From thence to the Boundary Line, and on to Island Pond, the greatest portion of the line passes through gravelly or sandy soil, requiring but a small quantity of ballast to secure a good and permanent road bed.

To meet the increased traffic, additional accommodation has been secured at Longueuil, by the construction of a new wharf, 118 feet in width, projecting in the river 750 feet. The wharf is so constructed as to form a basin between it and the wharf first built of 122 feet in width, and 550 feet in length. The width of the wharf is sufficient for the construction upon it of two sheds, each 400 feet in length, and 24 in width, with a line of double tracks between them—arrangements for the construction of these sheds are in progress.

The increased accommodation thus provided for is not near sufficient to meet the business that the through traffic of the road will call for, and when it is considered that the wharf and sheds referred to can only be made use of whilst the navigation is open, and that no decision has been yet come to as to a plan to store the produce and freight, which it will not be practicable to carry away immediately on its arrival, as well as to provide for a secure storage for what will be brought down late in the Fall, no time in my opinion, should be lost in adopting a plan that will afford the requisite facilities.

The peculiar position of the wharves at Longueuil, exposed, as they are, to the shoves of ice, preclude the possibility of permanent buildings adapted to the storing of flour and grain being constructed upon them. Such buildings,

therefore, will have to be built at a sufficient distance from the river, beyond the reach of ice, and an ample provision made for a rapid unloading from vessels, and conveying so much of the produce to the receiving store-houses as cannot be directly sent off to its destination.

Respectfully submitted by your obedient Servant,

C. S. GZOWSKI, Chief Engineer.

A. C. Webster, Esq., Secretary and Treasurer }  
St. Lawrence and Atlantic Railroad. }

ENGINEER'S OFFICE,  
St. Lawrence & Atlantic Railroad,  
Montreal, 17th Jan., 1853.

SIR,—I have the honor to submit the following brief report on the working of the Road, for the information of the Directors. With the exception of the unfortunate collision which took place last year, on the 20th of January, no serious accident has occurred, and the road has been working regularly up to the present time.

The track has been maintained in good working order, and the expenses of repairs on carriages and locomotives, when the new state of the road is considered, have been light. The amount expended on the repair and maintenance of track during the last year, is £2156 18s. 9d. Cy.

The supply of additional machinery at the Company's work shop at Longueuil, has been found to be of great convenience, and will be found a material saving in the cost of repairs. With the exception of castings, and a very heavy description of wrought iron work, everything connected with the repairs of locomotives and carriages is now done on the spot.

Large increase has been made during the year to the rolling stock on the road, and contracts have been entered into and the work in progress for the remainder of the locomotives and carriages which will be required for the use of the road, on its connection with Portland.

I submit the following statements—one showing the extent of rolling stock now employed on the road, and the other showing the working of ten first-class Locomotives during the year.

### STATEMENT

Showing the number of Engines and Cars in use on the St. Lawrence and Atlantic Railway:—

ENGINES—		CARRIAGES—	
First-Class Passenger Engines ...	3	First-Class Carriages ...	6
Do. Freight do....	7	First and Second-Class Carriages...	1
Second-Class Engines ...	2	Second-Class Carriages...	2
In addition to the above, one First-Class Passenger Engine, and two First-Class Freight Engines have been delivered on the road within the last two months, but having been but little used, they are not embraced in the accompanying Statement, showing the working of the Engines...		Baggage Cars ...	2
		Covered Freight Cars ...	26
		Platform Cars ...	96
		Earth Cars ...	10
		Small Service Repair Cars...	5
		Hand Cars ...	15
	3	Total number of Carriages of every description ...	
Total number of Engines on the road ...	15		163

# STATEMENT

*Showing the number of Miles Run by each Engine, and the Cost of Running each per Mile, including the Repairs:—*

Name of Engine.	Nature of Service employed Upon.	Total Number of Miles run.	Total Cords of Wood Consumed.	Total Gallons of Oil used.	Total lbs. of Waste used.	Total cost of repairs including value of material used.	Cost of running for the Year.	Cost of running per Mile.
"St. Lawrence",	Passenger Train...	24,680 Miles.	1,080	284½	611	£ s d 210 0 0	£ s d 731 3 0	s d 0 7 1-10
"Montreal",	Do.	11,740 "	322	130½	266½	254 9 8	691 0 2	1 0 75-100
"Queen",	Do.	7,636 "	168	86½	119	5 9 4	137 7 11	0 4 15-100
"Sherbrooke",	Freight Train...	14,772 "	674	169½	223	278 4 11	688 16 6	0 11½
"Richelieu",	Ballast...	18,480 "	846	238½	322½	118 14 10	667 16 10	0 7½
"Yamaska",	Wood, Iron, and Ballast...	30,847 "	872½	266	400½	160 4 1	637 0 0	0 7½
"Magog",	Ballast and Wood.	8,360 "	386	110½	169½	38 16 7	217 19 2	0 6½
"St. Francis",	Freight...	7,636 "	226	77	127	32 2 2	162 0 3	0 6
"Massawippi",	Ballast and Freight	1,662 "	67	19	30	16 2 9	62 18 5	0 8½
"A. N. Morin",	Wood and Ballast.	10,089 "	452	106½	181	285 3 6	633 17 4	1 0½
		126,772 Miles.	6,041 Cords.	1,468 Gals.	2,573 lbs	£1,417 6 10	£4,289 19 7	

Average Cost of Running the Engines per Mile, 0 8 2-10.

The cost of Repairing Carriages during the year	-	-	£994	1	3
Number of Miles run by Passenger Trains	-	-	-	44,086	
Number of Miles run by Freight and other Trains	-	-	-	81,686	
Total number of Miles run	-	-	-	125,772	
Total number of First-Class Passengers carried over the road during the year	-	-	-	18,900	
Total number of Second-Class Passengers	do.	do.	do.	34,600	
Total number of Passengers	-	-	-	53,500	
Average number of First-Class Passengers per diem	-	-	-	60	
Do. Second-Class	do.	do.	do.	111	
				171	
Average gross weight of Passenger Trains during the year	-	-	-	85 tons.	
Do. do. do. of Freight	do.	do.	do.	225 tons.	

The cost of running the engines, and the repairs to carriages and tracks, has been much less during the last than for the previous year. The chief cause is the improvement and consolidation of the Railroad. I am confident, when the road is once thoroughly ballasted, that, with good management, the running expenses and cost of repair will be still further reduced.

I have the honor to be, Sir,

Your obedient servant,

C. S. GZOWSKI, Superintendent.

To A. C. Webster, Secretary.

PROCEEDINGS  
OF THE  
FIRST MEETING  
OF THE  
SHAREHOLDERS  
OF THE  
Grand Trunk Railway Company  
OF CANADA,  
HELD AT  
QUEBEC, THE 27<sup>TH</sup> JULY, 1854.

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WITH THE REPORT OF  
THE BOARD OF DIRECTORS,  
THE ENGINEER IN CHIEF, AND  
THE GENERAL MANAGER.

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Montreal :  
JAMES POTTS, PRINTER, HERALD OFFICE, NOTRE DAME STREET

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1854.



### **Directors in London :**

THOMAS BARING, Esq., M.P.,	ROBERT McCALMONT, Esq.,
GEO. CARR GLYN, Esq., M.P.,	KIRKMAN D. HODGSON, Esq.
H. WOLLASTON BLAKE, Esq.,	

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### **Directors in Canada :**

HON. JOHN ROSS, *President.*

BENJ. HOLMES, Esq., *Vice-President.*

HON. FRANCIS HINCKS,  
E. P. TACHÉ,  
JAMES MORRIS,  
MALCOLM CAMERON,  
PETER MCGILL,

HON. L. T. DRUMMOND,  
GEO. CRAWFORD, Esq., M.P.P.  
W. H. PONTON, Esq.,  
E. F. WHITTEMORE, Esq.,  
HENRY LEMESURIER, Esq.

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### **Managing Director in Canada :**

SIR C. P. RONEY.

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### **Engineer in Chief :**

ALEXANDER M. ROSS, Esq.

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### **General Manager :**

S. P. BIDDER, Esq.

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JOHN M. GRANT, Esq.,  
*Assistant Secretary.*

W. H. A. DAVIES, Esq.,  
*Chief Accountant.*

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### **Auditors :**

WILLIAM MOLSON, Esq.  
WILLIAM WORKMAN, Esq.,  
ALFRED LAROCQUE, Esq.

## PROCEEDINGS OF THE MEETING OF SHAREHOLDERS.

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At a Meeting of the Shareholders of the Company, held at Quebec on Thursday, the 27th July, 1854, pursuant to Advertisement, the Hon. JOHN ROSS, President, in the Chair, it was

*Resolved*,—That the Report now read, and the accounts submitted, be confirmed and approved, and that a copy be transmitted to each Shareholder of the Company ;—

That for the future, the Meetings of the Shareholders of the Company in Canada, shall take place on the first Wednesday of September, in each year.

The next General Meeting to take place in Quebec, on the first Wednesday of September, 1855 ;—That at the meeting of the Shareholders to be held in September, 1855, one-third of the Elective Directors of the Company, shall go out of office ; one-third shall go out of office, at the meeting in September, 1856 ; and one-third at the Meeting in September, 1857 ; and at all subsequent Annual Meetings of the Shareholders, one-third of the Directors who have been longest in office ; every Directors so retiring be eligible for re-election :—

That Mr. HENRY LEMESURIER be elected a Director of this Company, in lieu of Captain RHODES, resigned ;—That Mr. WM. MOLSON, Mr. WM. WORKMAN, and Mr. A. LAROCQUE, each of Montreal, be elected Auditors of the Grand Trunk Railway Company of Canada.

That the existing Tariffs of Rates or Tolls, and all those fixed and regulated by the Board of Directors since the amalgamation of the Companies, now constituting the Grand Trunk Railway Company of Canada, be ratified ; and further, that this meeting empower the Directors to alter, fix, and regulate all Tolls and Tariffs of Rates, as from time to time they shall see fit and necessary ;—

That the Directors of the Grand Trunk Railway Company, be authorized to forfeit the Shares of the Quebec and Richmond Company, in arrear for calls, two months after notice of such intention shall have been published in the *Canada Gazette*, in the *Times*, (London) newspaper, and twice in a newspaper published in the Cities of Quebec, Montreal, Kingston and Toronto.

Mr. Ross having left the Chair, it was

*Resolved*,—That the cordial thanks of the meeting be given to the Hon. JOHN ROSS, for his conduct in the Chair, and for his active exertions on behalf of the Company.

(By order,)

C. P. RONEY,  
*Managing Director.*

QUEBEC, July 27, 1854.



# THE GRAND TRUNK RAILWAY COMPANY OF CANADA

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The first meeting of the Shareholders of this Company was held at Quebec, on the 27th July, 1854.

The Honorable JOHN ROSS, President of the Company, having taken the Chair,

Sir CUSACK RONEY proceeded to read the following reports:—

## REPORT OF THE DIRECTORS OF THE GRAND TRUNK RAILWAY COMPANY OF CANADA.

The period for holding the first meeting of the Shareholders of the Company having arrived, the Directors desire to place before them a full report of the progress of the undertaking since its formation.

The amalgamation of the several Companies now comprised under the title of the Grand Trunk Railway Company of Canada, was completed in July of last year; immediately afterwards the necessary steps were taken for issuing the shares and debentures to the holders of the Provincial certificates of the A series of Grand Trunk Shares, and for the conversion into Grand Trunk Shares of the paid up in full Shares of the St. Lawrence and Atlantic, the Quebec and Richmond, and the Toronto and Guelph Companies.

It may not be inopportune to state here that the system adopted and carried out, with reference to the preparation and issue of these documents, as well as to their registration and transfer, and to the payment of interest and dividends on them, is of the most complete and satisfactory character.

Immediately after the amalgamation, the necessary organization of the Company in the traffic department, under the control of Mr. S. P. Bidder, its General Manager, was effected. His report is attached hereto. The system of Audit of all receipts from traffic was also brought into operation on the principle of the London Clearing House—the experience of several years, acquired in English railways, demonstrating this as a complete and effective check on all payments on account of traffic. Its working on the section of railway between Portland and Montreal has shown the advantage of its adoption in this country. Arrangements have been made for its extension as the several sections of the Grand Trunk Railway are completed from time to time.

The St. Lawrence and Atlantic and Atlantic and St. Lawrence Railways, forming the line from Portland to Montreal, are 292 miles in length.—They were delivered to the Company in July, 1853, in a state unfit for working, and the locomotive and carriage stock was equally deficient.

Engagements, however, had been entered into which rendered it neces-

sary to keep the line open so as to get through one train a day during the winter.

Notwithstanding the adverse circumstances under which the line was worked, the traffic has gradually increased from £1644 3s 9d Stg., which it was on the week ending the 7th January last, to £3,627 1s 9d for the last week of the half year ending 30th ultimo. The total receipts for the half year were £73,112 8s 2d Stg. To earn that sum an expenditure of £58,122 14s 0d was incurred.

This large amount for working expenses will naturally attract attention, but it has to be remembered that the railway was kept partially open to fulfil the engagements already referred to, as well as the solicitation of flour and lumber merchants, who had made contracts in the belief and understanding that the railway from Montreal to Portland would be in effective working order during the winter. It must also be borne in mind that the last winter was the severest known in Canada East for several years, and that, in addition to the short supply of engines and other rolling stock, there were neither workshops nor tools for the necessary repairs. The half year just expired, therefore, forms no criterion for the future as regards working expenses.

The line is now in good working order. The ballasting throughout its entire extent is nearly completed. The number of engines has been augmented to 64, and more than the ordinary proportion of them is in complete and effective working order. The necessary workshops and tools have been provided, and every arrangement has been made, or is in progress, for rendering the line capable of conveying as large an amount of traffic as can be carried on a single line of railway, at or about the ordinary rates of working expenses. Since the 1st instant, "Through" trains accomplish the distance each way between Montreal and Portland in 11½ hours, and the number of passengers carried by them would have been greatly in excess of their present amount, had not the unfortunate prevalence of cholera checked the immense travel from the United States that usually flows into Canada at this season of the year. The ordinary trade of Montreal has likewise been diminished to a considerable extent in consequence of the prevalence of the disease.

Although the sea service of the Canadian Steam-Packet Company was not carried on in an effective manner during the past winter, the experience acquired by merchants and others has convinced them of the advantages of the communion; and there is no doubt that if a weekly passage were established between England and Canada, and that the sea service were performed with average regularity in vessels of large tonnage, the receipts on the line from Portland to Montreal alone would be increased between £1,500 and £2,000 a-week from this source.

Up to the date of the last advices from England, the 6th instant, £1,848,845 sterling had been paid on account of the A series of shares of the Grand Trunk Company and the debentures to which such shares are entitled.

£490,885 sterling have been paid in advance of future calls, a satisfactory proof of the confidence entertained by the English Shareholders of the Company as an investment.

It is intended that the next call of £2 10s. per share and of £10 on each class of debentures be made in October next, to be followed by calls for the same amounts in February and June, 1855.

Owing to the prospects of a general war in Europe, and the consequent probable depression of all securities, the Directors deemed it prudent, during the autumn of last year, to apply to the Provincial Government to grant, under the Guarantee Act 14 & 15 Vic. Cap. 73 Section 22, the same privileges with reference to the Province Bonds, to be issued to this Company, as had been afforded to other Railroad Companies in Canada entitled to the guarantee.

The Government assented to this proposal, and transmitted to Messrs. Baring & Glyn, the Agents of the Province in London, £905,700 of debentures, with instructions that they be issued to such Shareholders of the Grand Trunk Railroad Company as paid 40 per cent on their A shares, and in full on the Province Bonds to which they are entitled.

The amount paid in full on these debentures to the 6th instant, is £492,300 sterling. The works completed by the contractors to the 14th instant (at the rate of 40 per cent on the works to which the debentures apply) have entitled the Company to £311,000, and a further amount of £317,500 is held on account of those sections of the line hitherto known as the St. Lawrence and Atlantic and the Quebec and Richmond Railways. It, therefore, appears that the Company have not yet received from the Government the amount of Provincial aid to which it is entitled. The debentures are, however, in the hands Messrs. Baring & Glyn for disposal to the Shareholders of the Grand Trunk Company under the conditions before stated.

Should a larger sum be received by Messrs. Baring & Glyn in payment of these Debentures, than the amount to which the Company is entitled on works executed, it will be held by these gentlemen and will be only handed over by them to the Company, as it becomes entitled thereto from time to time by order of the Government of Canada.

A similar arrangement will be carried into effect with the B series of these Debentures as the works progress. The amount of this issue will be £905,800.

In accordance with the arrangement announced by the London Board on the 6th of May last, the Directors have entered into the following arrangements with reference to the progress of the work :—That they be actively proceeded from St. Thomas, 40 miles below Quebec, [to join the Quebec and Richmond line,] and between Montreal, Kingston, Toronto, Guelph and Stratford, so that the line shall be opened from Montreal to Prescott, and between Toronto and Stratford, a distance of 210 miles, in the autumn of next year, and the other sections giving a total length of 867 miles in October, 1856.

The works postponed under this arrangement comprehend 245 miles, and an outlay of about two millions sterling.

The capital accounts submitted herewith, show that the expenditure under that Head to the 30th ultimo, has been £1,860,265 5s. 6d. sterling, of which £227,793 sterling was on account of works on the line between Montreal and Portland, providing it with additional locomotive stock, workshops, &c., £589,425 for works and materials supplied between Montreal and Toronto, £363,396 19s., between Toronto and St. Mary's, £537,350 between Quebec and Richmond, £63,172 for the line East of Quebec, and £57,020 13s. 9d., for the Victoria Bridge.

The Directors refer with satisfaction to the full and detailed report of Mr. A. M. Ross, the Company's Chief Engineer, herewith subjoined, on the progress of the various works now in course of construction. It cannot fail to be read by the Shareholders with the deepest interest.

On the subject of the Victoria Bridge the Directors desire to state that its necessity and advantage become daily more apparent.

The explicit Report of Mr. Robert Stevenson, recently published, has convinced all persons interested in the subject, in an engineering point of view, of its practicability and propriety, and the perusal of Mr. Ross's Report will show the successful manner in which the works have progressed to the present time.—Viewed in relation to its commercial importance the Directors are more than ever impressed that, without it, the large and comprehensive traffic system involved in the construction of the Railway, could only be partially and by comparison ineffectually carried out at a very great cost. Montreal is the terminal point of the Ocean Navigation connected with the St. Lawrence on the one side, and of the great Canadian and American Lakes extending 2,000 miles into the heart of the Continent on the other. It is also the centre from which lines of Railway at present radiate to Portland, Boston, and New York, and to which lines now in progress of construction will converge from the Ottawa and other rich, though as yet, only partially developed districts of Canada. Without the Victoria Bridge the Grand Trunk Railway would, in fact, be two Railways involving the cost and expensive working of two separate plants, whereas by its construction under the perfect system of management which the Directors believe they will be able to introduce, not only will the immense traffic both of persons and of merchandize which now flows through Montreal continue with the natural expansion consequent upon the opening of Railways in surrounding districts; but it is the firm conviction of the Board that by means of the Bridge a better, more rapid and cheaper communication will be afforded for the produce of the magnificent districts of Western Canada and of the North Western States of America, including Michigan, Illinois, Wisconsin, Minnesota, Iowa, &c., to the Atlantic Sea-board, and for the supply of these districts with imported goods than by any other route on this Continent. With reference to the cost, it should be observed that if its amount be distributed over the whole Grand Trunk Line, it will add about £1,200 a mile to the expense of construction, making the total cost of the Railway (to be finished in every respect equal to a first class English Railway) about £9,500 a-mile, which amount includes the necessary Locomotives and other Rolling Stock for working the Line. In addition, the lines of Railway, independent of this Company, which converge at Montreal are about 1,600 miles in length.

All these will pay toll to the Company to pass their traffic over the Bridge, as it must be obvious that it will be cheaper than to ferry the river by steamboats in summer or by sleighs in winter.

The Directors are happy to announce that the agreement entered into in London between this Company and the Great Western Railway Company for each to suspend until 1856, such portions of the respective lines as excited mutual jealousy, has been confirmed by the Canada Board of that Company. In consequence the works on the Great Western Line from London to Sarnia, and this Company's Sarnia Extension have been deferred.

The Board has every reason to hope that before the expiration of the present agreement, terms of a friendly alliance will, under the decision of Mr. Stephenson, be arranged between the two companies, by which all the evils incident to any apprehended competition will be avoided.

A vacancy having been created in the Canadian section of the Board, by the retirement of Captain Rhodes, it is proposed to fill up the vacancy by the appointment of H. LeMesurier, Esq.

In accordance with the terms of the amalgamation agreement, the period at which the first election of Directors shall take place, as also the terms at which the future ordinary meetings of the Shareholders of the Company shall be held, are to be decided by the present meeting.

The election of three Shareholders of the Company as auditors, is likewise required by the terms of the amalgamation agreement.

Certain shares in the Quebec and Richmond Railway are now in arrears or calls. A resolution will be submitted to the meeting to empower the Directors to forfeit such shares two months after a notice has been published in the "Canada Gazette" and in the other newspapers.

The accounts of the Company up to the 30th ultimo, are herewith submitted.

JOHN ROSS,  
*President.*

Quebec, 27th July, 1854.

# REPORT OF THE ENGINEER IN CHIEF.

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TO THE DIRECTORS OF THE GRAND TRUNK RAILWAY COMPANY :—

*Gentlemen,*—In view of the approaching General Meeting, I have to report for your information, and that of the proprietary, the progress generally, which has been made in the prosecution of the works of this great undertaking.

In doing this, my statement must necessarily be confined to dry details, perhaps uninteresting and uninstrusive, excepting to those few, who from their position as Directors and Trustees, are naturally expected to evince a more than ordinary desire for the most full and authentic information, connected with the great trust confided to their charge.

I am on this occasion more than ordinarily anxious to fulfil this duty, as many unfounded and injurious reports have been spread abroad, and industriously circulated, respecting the progress made in the execution of the works of this most important enterprise. I shall therefore proceed to lay before you a detailed account of what has been done on the different divisions of Line, and the means now employed in carrying on the work.

## MONTREAL AND TORONTO SECTION.

It will be in the recollection of the Board, that the Spring of last year advanced before we were in a position to commence operations in the preparatory field works necessary for our guidance, these were prosecuted with vigour and the surveys completed in convenient Sections, were duly deposited in the proper Government offices to such extent, as enabled the Contractors in August of the last year, to proceed in acquiring the land and making the necessary arrangements for prosecuting the works.

In the meantime further deposits of plans have succeeded each other: the whole of the surveys are now perfected and deposited, these give a result of 333 miles, as the length of the line between the termini at Montreal and Toronto.

I have now to report, that the land has been purchased for 250 miles of this length, as well as for that required for the terminal Stations at Montreal and Toronto, and all the intermediate Stations along the whole length of the Section, amounting in the aggregate to nearly 3,500 acres. The remaining 83 miles which will comprise about 1000 acres may be acquired as soon as circumstances may seem to justify. Exorbitant sums have been paid for the land, at both the terminal Stations, and at many of the intermediate stations, also, in addition to being obliged in many instances to purchase a far greater quantity than the requirements of the Railway demanded. The land generally with some few exceptions, in addition to those instances already stated, has been obtained upon terms which have not disappointed our expectations,

and I do not anticipate that the portion still remaining to be acquired will leave much, if any cause for complaint.

With the view of completing the Eastern end of the line from Montreal to Brockville, about 112 miles, and, also, a small section of the Western end, from Toronto Eastward to Whitby about 35 miles, by the autumn of next year, forces to a large amount have been from the earliest commencement of the season regularly employed, and at every point requiring more than ordinary exertion for the attainment of this object every means is being taken to expedite the work.

The greatest of such points, occurs as you are aware, at the crossing of the River Ottawa, at St. Ann's and Vaudreuil, where the bridging extends to nearly 2,200 feet in length, and upon the masonry and works connected therewith; there are now employed 949 men and 109 horses; in addition to this, nearly the whole of the iron works for this structure, which constitutes one half of the cost of the Bridge has been completed in England and is now shipped.

Without referring to any other particular work beyond the one I have already specified, which is the largest and most important feature of the whole section, I would beg to draw attention to the appendix A, which clearly shows the amount and distribution of the forces now employed, this you will find upon the 147 miles now in active operation, gives an average of 50 men and 8 horses per mile.

Upon the middle division at Kingston, where such works only are being proceeded as require most time to complete, 650 men and 50 horses are employed. The completion of this division of the line being deferred to one year later than the sections at either end, no larger force than that now employed is necessary.

You will observe in the appendix there are 7,600 men, and 1260 horses employed between Montreal and Toronto, whose operations are principally confined to about one half of the line; and of this 650 men and 62 horses are employed in carrying on the works of the station buildings at Montreal, which are designed on a scale to meet the future requirements of one thousand miles of Railway, converging at this centre. Having thus enumerated the amount of forces employed in prosecuting the works of the sections now proceeding with, I shall briefly state the amount of work already accomplished; which I shall describe by commencing with the Rails.

Of 15,000 tons of Rails required, there have been received 9452 tons, and 4448 Tons in addition have been shipped and may shortly be expected. There are, also, 6000 tons more provided, which await the departure of the September fleet from England, when the whole will have been sent off.

Of 350,000 Ties required, there are 208,000 provided.

Of 150 miles of fencing, there are 55 miles completed, and the whole of the remainder provided.

44 miles are already graded, and the remainder are being proceeded with in full force.

The Culvert and Bridge Masonry are advancing in due proportion at every point where needed most, and in every instance will, I believe, keep pace with the other works.

It is intended to get in the foundations for the Station Buildings, at Mon-

treel, throughout this season, these extend to an aggregate length of 3000 feet, in sundry buildings, varying from 40 to 90 feet in width, some of which are two stories in height, and consist principally of Passenger Stations, Goods Warehouses, Locomotive erecting shops, Engine Stables, Car erecting shops, Smiths, and Foundry shops.

It is proposed to complete the Car and Smiths shops this season, so as to admit of commencing the construction of the car rolling stock, which is to be built upon the premises. The remaining buildings of this establishment being so far prepared this autumn, will be readily advanced to completion next year.

The Locomotive power is being prepared in England, at the Canada Works, Birkenhead, where the bridge Iron-work is also constructing, and upon these 650 artisans are now employed.

Considering the magnitude of the operations in which we are engaged, and the many adverse circumstances incident to a country devoid of all and every flexible appliance for carrying out large works, I think, on the whole, we have every reason for congratulation, in being able at the end of the first twelve months' operations, to render a statement showing nearly 50 per cent. of the task now in hand accomplished, moreover, the progress now making with the forces employed, will at the close of the present season advance the works of grading to near completion, and leave little more to do in the ensuing year, than to lay and finish the superstructure of the permanent way, for which, in the meantime, every appliance will be amply provided.

## TORONTO AND SARNIA SECTION.

On the Western Section beyond Toronto, it will be in the recollection of the Board, that all works West of St. Mary's, 69 miles from Sarnia, have been in abeyance, beyond this point nothing has been done, excepting the completion of the surveys, and securing the right of way.

The works of construction between Toronto and St. Mary's, 99 miles, have made considerable progress, and at present the Contractor's operations are confined to the district extending from Toronto to Stratford, 89 miles.

I find in the returns furnished to me by Mr. Walter Shanly, my resident assistant in that district, that there are one thousand nine hundred and thirty men employed upon the work, this gives an average of about 22 men to the mile, and considering the amount of earthwork yet to do upon this section, I deem an increase of the forces employed in that district advisable.

The masonry is as far forward as can be desired, and in every way satisfactory. The supply of permanent materials, such as cross-ties, fencing, and rails, as yet, only reach 35 per cent. of the required amount.

These, however, are but temporary drawbacks which can be soon overcome, and by the end of the season, I have good reason for believing, that the results will be in every way satisfactory throughout the whole of this section. Every disposition is evinced by the Contractors to meet our wishes in this respect, and, I am advised that every arrangement is made for the immediate supply of all the rails required.

## VICTORIA BRIDGE.

I shall now refer to the Victoria Bridge, which is to form the connecting link between the Western and Eastern divisions of this system of Railway



comprised in the Grand Trunk scheme ; and with reference to this important work, I have to state in addition to the North abutment dam, the dams of Nos. 1 and 2 piers are fixed in their places, and No. 1 dam, was pumped out on Friday, the 14th instant, in one hour and a half, thus fully testing its efficiency, proving it to be as tight as a tub.

The machinery and other appliances necessary are now fixed and the masonry is being proceeded with. Dam No. 2, as well as the abutment dam, are being supplied with clay puddle, necessary for their completion, and they will shortly be in the same state of forwardness as dam No. 1, already referred to. Dams 3 and 4 are also constructed, and they will be floated into their places as soon as practicable.

Separate Engines for pumping water and setting the stone are provided, and ready to be fixed on each of the six dams, and every other appliance in machinery and gearing of all kinds are also prepared on the most extensive scale.

The complete success of the dam already tested furnishes the most satisfactory evidence of the efficiency of the plans which have been pursued in reference to this important undertaking.

The quarries at Pointe Claire provide stone of superior quality and dimensions ; having been in operation for the last 8 or 9 months, very large quantities of stone have been provided and prepared for setting in the works.

Wharves have been constructed on the St. Lawrence, in the vicinity of the quarries, and Railways are laid down to facilitate the shipment of the stone.

The contractors have also provided two very powerful new steamboats, with a fleet of barges built expressly for the purpose, which are designed to carry the stone to the site of the bridge. These are now in active operation, and permanent progress will very rapidly begin to appear, which with the forces employed will soon rise into importance.

At present as shewn by the Appendix A, there are one thousand one hundred and seventy-two men and seventy-two horses employed upon this work.

Preparations for the construction of the iron-work are proceeding at the Canada Works Birkenhead, on a scale commensurate with the magnitude of the undertaking under the direction and superintendence of Mr. Stephenson, and in the course of next year, we contemplate the erection of a considerable portion of this part of the work.

## THE QUEBEC AND RICHMOND SECTION.

Comes next in order, and with reference to it, I have merely to state that every exertion is being made to lay and finish the superstructure of the permanent way, so as to be able to open the line for Traffic early in September.

The masonry throughout this section is of a very superior description, some few of the iron-bridges remain yet to be finished, they are all proceeding with despatch, and I do not anticipate any contingency happening which can disappoint our expectations in this instance.

The extension from Hadlow Cove to Tibbet's Wharf is proceeding with vigour, and would be much further advanced than it now is, but for the delay experienced in procuring the right of way. The Passenger Station Building and Steamboat landing wharf, are being advanced rapidly ; a correspond-

ing landing would, also, have been in a similar state of forwardness on the Quebec side, if the authorities with whom we had to deal for the property, had met our applications with promptitude.

### QUEBEC AND TROIS PISTOLES.

I have now to refer to the Trois Pistoles Section, which has been finally located from its point of departure from the Quebec and Richmond Railway to the Rivière du Loup, 113 miles. Plans of this portion have been duly deposited in the proper offices, as required by the acts and the usual notices in reference thereto, published.

The right of way has been secured for eighty miles.

The construction of the first 40 miles from the point of departure on the Quebec and Richmond Railway to St. Thomas, was commenced early in the Spring, and by this time fully one third of the grading of this length is complete.

The masonry for the large bridges is progressing, and the iron-work for those bridges is finished in England, and we are advised will be sent off as soon as its shipment can be effected.

The whole of the ties are provided and in course of delivery, as also, the whole of the fencing which is now being erected.

The rails about 4000 tons required for this section are all provided, although, only 1000 tons have yet reached us. The remainder will be forwarded as speedily as ships can be found for their transportation.

One thousand one hundred and forty-two men, and 84 horses are now employed upon this section; and with the exception of two large bridges, the whole of the grading will be completed this season.

### MONTREAL AND PORTLAND.

The works of completion upon this section are so far perfected as to admit of a large reduction of the forces employed.

Those still engaged are chiefly employed in relaying portions of the line at either end, where cross bearers are being substituted for the objectionable mode originally adopted; the disadvantages of which were sufficiently apparent at so early a stage in the construction of the line, as to occasion its abandonment when not more than twenty per cent. of the whole had been completed. In the course of the Summer, much of this inferior part of the line will be re-laid, and such works as still remain to be done in draining, &c., which the experience of last Winter demonstrated to be so necessary will be carried out.

The line is now in good and fair running order throughout, and nothing in Railway traveling can exceed the regularity with which time is kept by every train.

Another no less gratifying proof of the efficient performance of the service of the Company, is to be found in the almost entire freedom from accident of any kind whatever. Excepting one instance, when the imperfect wheel of a goods wagon suddenly broke and damaged four other wagons with their contents, there is nothing to record worth mentioning, since the company commenced working the line, and I sincerely trust we shall continue to enjoy that immunity from casualties, which it has hitherto been our good fortune to experience.

I find on referring to our accounts, that in the twelve months ending on

the 1st instant, the sum of £275,000 sterling has been expended. One third of this amount has been spent upon the road, land and stations; one third upon the supply of additional locomotive and rolling stock, and the remainder in payment of old contracts and sundry old outstanding liabilities, in the aggregate amounting to nearly £950 per mile, and yet we are not done.

The increasing traffic, creates a constant demand for additional accommodation in stations now in use, and for new sidings, which the new mills and establishments upon the line and its vicinity, amply justify; this will render necessary a further supply of rails, &c.

Although a great deal has been effected in securing extended accommodation at the Portland Terminus—the most important feature in the whole project, there still remains much to be accomplished which is now in active operation. Hence expenditure upon a large scale is still going on, to stop which would be virtually to close the door upon the trade. I would estimate the work still to be done on the line, and the stations between Montreal and Portland, and the necessary increase at the Portland Terminus to be about £150,000 sterling. This would make the total cost of the line somewhat under £9000 per mile.

I have the honor to be, Gentlemen,

Your most obedient servant,

(Signed,)

ALEX. M. ROSS, Engineer.

# GRAND TRUNK RAILWAY COMPANY OF CANADA.

## WORKS IN PROGRESS.

RETURN OF FORCE EMPLOYED DURING THE MONTH OF JUNE 1854.—APPENDIX A.

DIVISION.	Carpenters	Sawyers.	Smiths.	Masons, Quarrymen & Stone Cutters.	Brickmakers	Labourers.	Mariners.	Locomotives	Total Men.	Total Hores.
Montreal & Toronto										
Eastern Division...	474	126	229	807	64	4036	....	....	5796	955
Central Division...	36	18	24	82	....	490	....	....	650	50
Western Division..	82	44	64	108	....	120	733	....	1151	253
Toronto & Sarnia .	....	....	....	....	....	....	....	....	1930	240
Victoria Bridge....	125	136	72	364	....	309	146	....	1152	74
Quebec & Richmond	....	....	....	....	....	....	....	5	2000	200
Quebec and Trois Pistoles.	....	....	....	....	....	....	....	....	1142	84
									13821	1856

## REPORT OF THE GENERAL MANAGER.

*Gentlemen*,—In presenting my Report of the operations of the Line between Montreal and Portland, during the past year, it will be necessary, for the information of the Shareholders, to state briefly the condition in which we found the property on taking possession of it in July, 1853.

The Directors of the two Companies, namely, the St. Lawrence and Atlantic (from Montreal to the American Frontier,) and of the Atlantic and St. Lawrence (from the American Frontier to Portland,) anxious it appears to secure the Summer Traffic of 1853, opened the 47 miles between Sherbrooke and Island Pond, which completed the through communication to Portland in a very imperfect state; so much so, that it became necessary in October to close it again, except for one Train in the middle of the night.

A general survey having been made of the Line and Stations: it was seen that a very considerable outlay was required in new works to accommodate the Through Traffic, the equipment of the Lines having been confined by the former Companies to the Local Traffic only. The most important of these works consisted of New Sidings, Water Tanks, a New Goods Warehouse and the necessary Workshops for the repairs and maintenance of the Locomotive and Carriage Stock of the Company.

A New Station and Storage Warehouse at Portland were required, as also the enlargement and improvement of the Way-Stations throughout the Line; on about 60 miles of the Railway, New Sleepers had to be laid down; and there was no ballast on almost the whole length of the Railway.

When this Company took charge, the Amalgamated Stock consisted of:

34 Engines,	172 Freight Cars.
24 First Class Cars.	265 Platform do.
9 Second do. do.	22 Ballast do.
15 Baggage do.	

Of these— 4 Engines,	23 Platform Cars,
11 Freight Cars,	

Were scarcely worth repairing and most of the remaining Engines, and a considerable number of the Cars required a thorough repair. The New Stock contracted for by the Old Companies, comprised:

25 Engines,	292 Freight Cars,
5 First Class Cars,	73 Platform do.

To meet the requirements of the Line, an additional number has been added, and the total Stock for working this Section of the Grand Trunk system, is composed of:

64 Engines,	419 Platform Cars,
34 First Class Cars,	17 Baggage do.
15 Second do. do.	45 Ballast do.
471 Freight do.	14 Snow Ploughs.

The system—if system it may be called—adopted by the Old Companies for keeping the Accounts and Working the Line was so defective, as to render it necessary to put aside all their Traffic Books, Papers and Forms, and to print and to bring into operation a complete new set.

The practise of selling tickets in the Cars has been acknowledged, both in Canada and in the United States, to be a deeply rooted evil; and as a first step to put it down on this Line, we commenced to charge 25 cents more for Tickets purchased in the Cars. This has had the desired effect to a great extent: much less money being now taken by the Conductors than formerly.

The right to use the Ticket System known as Edmondson's, which has been adopted by every Company in England, has been secured for the Grand Trunk Railway; the necessary machines have been provided, and we are now printing our own Tickets, and hope shortly to have the system in full operation.

An Audit Department has been organized on the principle of the Railway Clearing House in England, through which all Traffic Accounts will be passed, and all other Accounts of the Company checked. This, as well as the Merchandize departments, are presided over by Gentlemen of many years experience on English Railways.

After the close of the Navigation last year, the Screw Steamers ran between Liverpool and Portland with passengers and goods, thus opening up for the first time an entire new winter route for Canada; and notwithstanding our deficiency of engine power, and the defective state of the Line, the traffic of these vessels has been conveyed with a dispatch which has given general satisfaction.

To show the importance of this new route for Canadian Produce to the Eastern Market, it will be sufficient to state that 70,000 barrels of Flour were conveyed over the Line during the Winter months.

With reference to the present prospects of the Railway as it is opened up for Traffic, my expectations are of the most sanguine character, and judging in a small degree from the results of the past six months, I think I am warranted in stating that the Grand Trunk Road, as it becomes developed, will have a traffic equal, if not superior, to any line of railway on the Continent of America.

As you will have observed, the receipts of the Portland Road have, during the past half year, been raised from \$8,000 00 to \$18,000 00 per week; and I am of opinion that during the months of July, August and September, this amount will be greatly exceeded, should the ordinary American summer travel take place and which is likely to be increased by the desire to view the works of the Victoria Bridge, now becoming so generally known, and causing so great an interest throughout the whole of this continent. In addition, several large Saw Mills are in course of erection, and will shortly be ready for work, capable of cutting 200,000 feet of lumber per day and several others are likewise in contemplation.

The Engineer's Report will inform you that the Quebec and Richmond Road will be open for traffic the first week in September.

The local traffic of this line, as you are aware, will not, for some time to come, be an important item in our receipts; but the through traffic from Quebec to Montreal and Portland, especially during the close of the navigation, will assuredly be equivalent to all that has been anticipated. Apart, however, from the local traffic of the line, you will not fail to remember the immense advantage of such a communication between Quebec and Montreal, and there can be no doubt but that the very fact of a railroad running between these two places in mid-winter will induce travel that never has been contemplated.

I now come to speak of the line West of Montreal, but my observations in this report must be confined to repeating the expectations I have already expressed. Indeed, it would be uncalled for on my part to say more at present than to state, from the experience and knowledge of the country I have acquired since my residence in Canada, that my anticipations concerning the profitable working of that section of the Grand Trunk Road are more sanguine than ever. Daily does some fresh proof arise of the necessity and advantage of railway communication between the Eastern and the Western portions of the Province. Emigration alone, the amount of which is illimitable, will furnish an increasing source of traffic to the railway. Upwards of 30,000 Emigrants have already passed through Canada on their way to the far west this season, and it is not too much to say that two-thirds of all the persons who land at Quebec will certainly pass over our road when it is completed. I also find that the district through which the line is carried is so thickly populated that it is impossible for us, at this present time, to estimate the great amount of traffic which this district of Canada will furnish to the railway.

On referring to some statistics relating to Canada, between Montreal and Toronto, I find that, leaving out these cities, as well as Kingston, the following districts, in which we shall have stations, contain the subjoined population :

STATIONS.	POPULATION.	REMARKS.
1—Lachine.....	About 1000	
2—St. Clair.....		
3—St. Ann.....		
4—Road to Cedars.....	1500	Rising District.
5—New Longueuil.....		
6—Lancaster.....	5000	Nearly 15,000 acres under cultivation.
7—Charlottetown.....	6000	Quantities of hardwood, pine, &c.
8—Cornwall.....	4000	Tanneries, and a large export of Potashes,
9—Osnabruck.....	5000	25,000 acres cultivated, produce very large.
10—Williamsburgh.....	4000	
11—Matilda.....	4000	Tanneries, Ashes, Exports, &c.
12—Edwardsburgh.....	4500	Maple Sugar Refineries, Wool Factories.
13—Augusta and Prescott.	8000	
14—Elizabethtown and Brockville.....	9000	Brockville contains 4000.
15—Yonge.....	4000	
16—Landsdown.....	} 5000	
17—Leeds.....		
18—Pittsburgh.....	3000	Agricultural produce generally.
19—Ernestown.....	5000	
20—Napane.....	1000	
21—Shannonville.....		
22—Belleville.....	} 4000	{ Thriving town—trade of Marmora Iron Works comes here.
23—Port Trent.....		
24—Colborne.....	1000	Lumber traffic.
25—Grafton.....	1000	Plenty of Grist Mills.
26—Port Cobourg.....	} 5000	{ Cloth Factory employing 200 hands—con- sumption of Wool to nearly ½ million.
27—Port Hope.....		
28—Bond Head.....	3500	Most rising place.
29—Bowmanville.....	10000	25,000 acres under cultivation.
30—Whitby.....	2000	Brewery, Tannery, &c.
31—Pickering.....	7000	Best settled district in West.
32—Scarborough.....	4000	
33—Scarboro' Height.....		
Total	107500	

These figures, in themselves, would be sufficient to warrant my saying that this division of the line could not fail to be profitably worked ; and in addition, the constant and increasing through travel between Montreal and Toronto, both passengers and merchandize, apart from all local traffic, would almost, in itself, prove remunerative to the Shareholders. It must likewise be remembered that for many miles back, for the whole length of the line, the country is populated with the most rising and energetic class of persons that can possibly be located in the neighbourhood of a railroad, and that at from different points the traffic of the interior is brought to our line by Railways now open and in course of construction.

Although I shall not more than allude to the Sarnia division, I am not unmindful that this and the districts beyond are the points from which we must receive an amount of traffic the magnitude of which we can form no conception of.

Whether as an amalgamated Company with our neighbour, the G. Western, or acting as an independent Company, I am convinced that a large amount of the breadstuffs of Michigan, Iowa, Wisconsin, and a portion of Illinois, which now find their way to the sea-board by water and by the United States lines of road, must pass over the Grand Trunk, not only on account of its being the cheapest and most direct route, but also because of the less number of handlings these goods would have, and the consequent extra rapidity with which they would be conveyed.

In fine, I may add, that the more I see and hear of the resources of this country, the more assured do I become of the absolute necessity of the Grand Trunk line of Railway, and in proving its necessity I cannot but prove also its pecuniary profit to the Shareholders. Although, on my first arrival in Canada, I had my doubts as to the earnings being as large as estimated in the prospectus, I have now much satisfaction in bearing my testimony to the probability of the amount therein stated being realized, and that, too, within two or three years from the date at which a through communication shall have been established between Sarnia, or some other point in that district, with Portland and Quebec.

I am,  
Gentlemen,

Your most obedient servant,

(Signed)

S. P. BIDDER.

MONTREAL, July 24th, 1854.

The Chairman having called the attention of the meeting to the chief features in these reports,

The Honorable GEORGE PEMBERTON stated that he felt great pleasure in attending this, the first, meeting of the Company. He congratulated the proprietors upon its financial position, and upon the progress already made in carrying forward the magnificent system of railways of which the Grand Trunk consisted. In reference to one part of the report, he would observe that he had heard, by the last mail, that 65 ships were either loading in England or were already on their way to Canada, with iron and other materials for the construction of the railway. This was in addition to the large amount that had already been received by the spring fleet. He concluded



by moving the adoption and confirmation of the Report of the Directors, and of the accounts submitted with them.

Mr. J. B. Forsyth seconded the motion, which was carried unanimously.

The Chairman said, that under the Company's Act, it was necessary for the Shareholders to decide at this meeting the time at which the future meetings of the Company should be held.

It was then determined that the meetings should take place annually, on the 1st Wednesday in September, and that at the meeting to be held in Sept., 1855, one-third of the members of the Canadian Board should retire, one-third in 1856, and the remaining third in 1857—the retiring Directors to be eligible for re-election.

Mr. Henry LeMesurier, of Quebec, was elected a Director in the room of Captain Rhodes, resigned, and Mr. William Molson, Mr. William Workman, and Mr. Alfred LaRocque, were appointed Auditors of the Company.

A resolution, empowering the Directors to forfeit certain Shares of the late Quebec and Richmond Company in arrear, having been passed, the proceedings terminated with a vote of thanks to the President, which was proposed by Mr. Michael Scott, of Quebec, and carried by acclamation.

The meeting then adjourned.

# GENERAL STATEMENT OF THE

DR.

30th June,

	Six months ending June 30th 1854.	From 15th July 1853, up to 31st December, 1853	Prior to Amalgamation.	Total to 30th June, 1854.
(See Abstracts)				
<b>PRELIMINARY EXPENSES—</b>	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Grand Trunk.....	.....	1722 13 3	.....	1722 13 3
Toronto and Guelph.....	84 12 0	489 7 5	8086 19 7	8660 19 0
Toronto and Kingston...	.....	954 4 2	.....	954 4 2
Montreal and Kingston...	.....	3040 8 4	.....	3040 8 4
Grand Junction.....	.....	285 11 5	.....	285 11 5
A Engineering.....	4297 18 1	7195 5 8	29291 16 10	40785 0 7
B Works and Permanent way.	33190 8 1	38078 17 4	807578 0 9	878847 6 2
C Stations Buildings and Offices.....	9040 18 8	9527 4 6	38853 11 0	57421 14 2
D Advertising and Printing...	1001 1 0	468 3 7	1323 16 3	2793 0 10
E Locomotive Stock.....	21387 10 0	13485 5 1	38158 6 8	73031 1 9
F Merchandize Car Stock....	5453 12 0	10662 18 7	26513 17 2	42630 7 9
H Passenger Car Stock.....	92 9 1	2257 7 11	11298 1 8	13647 18 8
I Miscellaneous Stock.....	1244 5 2	315 8 11	312 0 9	1871 14 10
G Gen'l expenses—Canada...	8840 15 4	13855 11 9	106874 8 6	129570 15 7
General expenses—London.	8046 5 11	.....	.....	8046 5 11
K Electric Telegraph.....	360 8 7	2970 0 0	.....	3330 8 7
Electric Telegraph Charges	84 8 5	35 12 5	.....	120 0 10
<b>WORKS—</b>				
Toronto and Sarnia.....	133695 5 5	229701 13 7	.....	363396 19 0
Montreal and Toronto...	380425 0 0	209000 0 0	.....	589425 0 0
Quebec and Richmond...	33174 15 4	504175 4 5	.....	537349 19 9
Quebec and Trois Pistoles	33172 0 0	.....	.....	63172 0 0
Victoria Bridge.....	54000 0 0	3020 13 9	.....	57020 13 9
Survey London and Stratford	2056 19 5	.....	.....	2056 19 5
Lands and Land Damages...	751 8 11	3570 12 ..	.....	4322 0 11
Steam Ferry Boats.....	4109 11 9	.....	.....	4109 11 9
Interest Account.....	21256 9 0	19687 9 2	.....	40943 18 2
	785766 2 2	1074499 13 3	1068290 19 2	2928556 14 7
Balance to Credit of Capital account.....				52503 7 3
				3981060 1 10

## REVENUE

30th June,

EXPENDITURE.	From 1st Jan 1854, to 30th June, 1854.	From 15th July, 1853, to 31st Dec. 1853.	TOTAL.
(See Abstracts.)	£ s. d.	£ s. d.	£ s. d.
L Locomotive Power.....	25973 13 3	7006 6 5	32979 19 8
M Maintenance of Way .....	13201 3 9	.....	13201 3 9
N Merchandize Charges .....	12042 11 4	2178 10 3	14221 1 7
O Coaching Charges .....	4834 6 1	2959 9 1	7793 15 2
P General Charges .....	2070 19 7	1446 18 10	3517 18 5
Compensation for Losses &c.....	316 19 11	.....	316 19 11
Longueuil Ferry Account.....	321 3 4	.....	321 3 4
	58760 17 3	13591 4 7	72352 1 10
Balance to Credit of Revenue Account.....	13778 9 2	11289 17 6	25068 6 8
	72538 6 5	24881 2 1	97420 8 6

1854.

**CR.**

By CAPITAL SHARE--		£	s.	d.			
St. Lawrence Shares	7626 Shares converted	190650	0	0	£	s.	d.
	222 do unconverted	4561	12	10	195211	12	10
Toronto & Guelph do	204 do converted	5100	0	0			
	33149 do unconverted	113597	13	4	118697	13	4
Quebec & Richmond Shares					290680	3	4
Grand Trunk A Issue up to 31st May					648515	0	0
By Debenture Capital—Montreal City Debentures					102739	14	6
Island Pond do					90000	0	0
British American Land Cys. Bonds					20547	18	11
Montreal Seminary do					20547	18	11
Provincial Debentures (St. Lawrence & Atlantic Railway Cy)					467500	0	0
Quebec and Richmond Debentures					100000	0	0
Grand Trunk Railway Cys Debenture Certificates No. 1.					407450	0	0
Do. do. do. do. do. do. No. 2.					519170	0	0
					1727955	12	4
2981060 1 10							

**ACCOUNT,**

**1854.**

RECEIPTS.	From 1st Jan 1854, to 30th June.			From 1st July 1853, to 30th Dec. 1854.			TOTAL.		
	£	s.	d.	£	s.	d.	£	s.	d.
Received from 90,771½ First Class, and 27,035 } Second Class Passengers..... }	20389	11	11	10394	19	1	30784	11	0
From 116,571 Tons Merchandise.....	46973	12	8	12884	10	5	59858	3	1
For the Carriage of Mails.....	3130	9	7	1384	14	2	4515	3	9
For Expresses, &c.....	1223	13	11	137	9	4	1361	3	3
For Rents.....	821	18	4	79	9	1	901	7	5
	72539	6	5	24881	2	1	97420	8	6

**GENERAL**

DR.

30th June,

			£	s.	d.
To Payments made to Contractors.....			61840	8	10
To Balance due by Sundry Persons.....			6256	6	9
To Cash on hand, London 31st May.....	224733	18	4		
Canada 30th June.....	10127	6	7		
			234861	4	11
To Bills Receivable on Hand.....			16422	9	0
To Bonds on Hand, Toronto City.....	82191	15	7		
Provincial (St. Lawrence & Atlantic Railway Cy.)..	7200	0	0		
Atlantic & St. Lawrence Railway Cy.....	99452	1	1		
			188843	16	8
To Exchange and Commission account.....			4410	6	0
To Inland Freight account.....			147	6	9
To Premium on Debenture account.....			16764	0	0
To Provincial Debenture account, (Grand Trunk).....			135300	0	0
To Stores on Hand.....			14374	17	0
To Fuel on Hand.....			9476	2	3
To Outstanding Traffic accounts.....			19709	17	10
To Balance at Debit of the Atlantic & St. Lawrence Railway Company.....			152300	17	8
			860707	13	8

**DETAILS OF EXPENDITURE REFERRED****ENGINEERING—Abstract A.**

						£	s.	d.
Salaries and Office Expenses ....	....	....	....	....	....	3889	5	3
Surveying, &c. ....	....	....	....	....	....	33	12	11
Travelling and Incidental Expenses ....	....	....	....	....	....	365	19	10
Instruments and Drawing Materials ....	....	....	....	....	....	2	5	2
Maps and Plans ....	....	....	....	....	....	6	14	11
						4297	18	1

**STATIONS, BUILDINGS, AND OFFICES—Abstract C.**

						£	s.	d.
Engine Stations ....	....	....	....	....	....	253	3	6
Passenger Stations ....	....	....	....	....	....	749	15	1
Merchandise Stations ..	....	....	....	....	....	1371	10	1
Stations, Wood, and Water	....	....	....	....	....	5676	8	6
Offices ....	....	....	....	....	....	162	11	9
Wharves and Depot Grounds ....	....	....	....	....	....	827	9	9
						9040	18	8

**LOCOMOTIVE STOCK—Abstract E.**

						£	s.	d.
Engines ....	....	....	....	....	....	19701	1	11
Workshops ....	....	....	....	....	....	173	18	5
Tools and Implements ....	....	....	....	....	....	1428	2	6
Miscellaneous ....	....	....	....	....	....	7	12	3
Ferry Boat ....	....	....	....	....	....	71	14	11
						21387	10	0



## DETAILS OF EXPENDITURE REFERRED

### GENERAL EXPENSES—Abstract G.

	£	s.	d.
Salaries and Office Expenses .....	6977	1	5
Direction ..	1106	17	2
Rent and Taxes .....	224	4	5
Books and Stationery ..	518	17	7
Miscellaneous .....	13	14	9
	8840	15	4

### MISCELLANEOUS STOCK—Abstract I.

	£	s.	d.
Furniture, &c., in General Offices ..	59	17	6
Furniture, &c., at Stations .....	233	18	4
Houses, &c. ....	950	9	4
	1244	5	2

## DETAILS OF CHARGES REFERRED

### LOCOMOTIVE POWER—Abstract L.

	£	s.	d.
Salaries and Wages connected with the working of the Locomotive Engines..	5050	3	2
Firewood .....	11907	19	5
Oil, Tallow and Waste .....	1374	7	0
Materials for repairing Engines and Tenders .....	1717	4	8
Wages for repairing Engines and Tenders .....	2753	18	11
Repairs to Workshops, Tanks, Tools and Implements ..	582	11	8
Repairs not done by the Company .....	1913	15	7
Lighting .....	39	19	1
Small Stores .....	173	6	11
Water ....	139	16	9
Watchmen .....	267	4	11
Miscellaneous .....	68	5	2
	25973	13	3

### MERCHANDIZE CHARGE—Abstract N.

	£	s.	d.
Salaries to Superintendents and Clerks, and Office Expenses .....	2774	19	5
Wages to Conductors, Brakesmen and Porters .....	4272	6	0
Oil, Tallow and Waste .....	381	17	1
Materials for Repairing Cars and Sheets .....	1467	3	4
Wages for Repairing Cars and Sheets .....	1403	15	10
Repairs to Workshops, Cranes, Tools and Implements...	110	12	3
Repairs not done by the Company .....	1162	4	11
Lighting...	34	15	9
Compensation .....	62	10	3
Small Stores .....	55	2	5
Wages to Switchmen .	165	13	10
Miscellaneous .....	151	10	3
	12042	11	4

## TO IN CAPITAL STATEMENT.—(Continued.)

### PASSENGER CAR STOCK—Abstract H.

	£	s.	d.
First Class Cars .....	6	11	6
Workshops .....	78	18	1
Tools and Implements .....	6	19	6
	91	9	1

### ELECTRIC TELEGRAPH—Abstract K.

	£	s.	d.
Instruments .....	0	5	6
Repairing Implements .....	71	18	0
Line .....	48	19	2
Office Fittings .....	37	13	0
Batteries ..	112	13	8
Salaries ..	78	11	1
Stationery .....	10	2	5
Incidentals .....	2	5	9
	360	8	7

## TO IN THE REVENUE STATEMENT.

### MAINTENANCE OF WAY AND BUILDINGS—Abstract M.

	£	s.	d.
Inspectors, Platelayers, and Laborer's Wages and Tools .....	6031	3	7
Rails, Chairs, Ties, Fittings, Sleepers, &c. ...	4250	18	3
Repairs to Bridges, Tunnels, Culverts, Slopes, &c. ....	1305	14	10
Repairs to Stations, Buildings, Sidings and approaches .....	1063	3	5
Repairs to House Property .....	49	5	4
Wages to Switchmen. ....	336	14	10
Small Stores .....	91	11	0
Lighting .....	28	6	11
Miscellaneous .....	44	5	7
	13201	3	9

### COACHING CHARGES—Abstract O.

	£	s.	d.
Salaries to Superintendents, Booking Clerks and Office Expenses. ....	1648	15	9
Wages to Conductors, Brakesmen and Porters .....	1039	15	3
Oil Tallow and Waste. ....	118	15	1
Materials for Repairing Cars. ....	464	13	9
Wages for Repairing Cars .....	595	2	9
Repairs to Workshops, Tanks, Tools and Implements. ....	45	4	11
Repairs not done by the Company .....	493	8	4
Compensation .....	118	7	1
Small Stores .....	116	0	6
Lighting. ....	27	0	6
Wages to Switchmen .....	103	3	0
Miscellaneous .....	63	19	2
	4834	6	1

# **GENERAL CHARGES—Abstract P.**

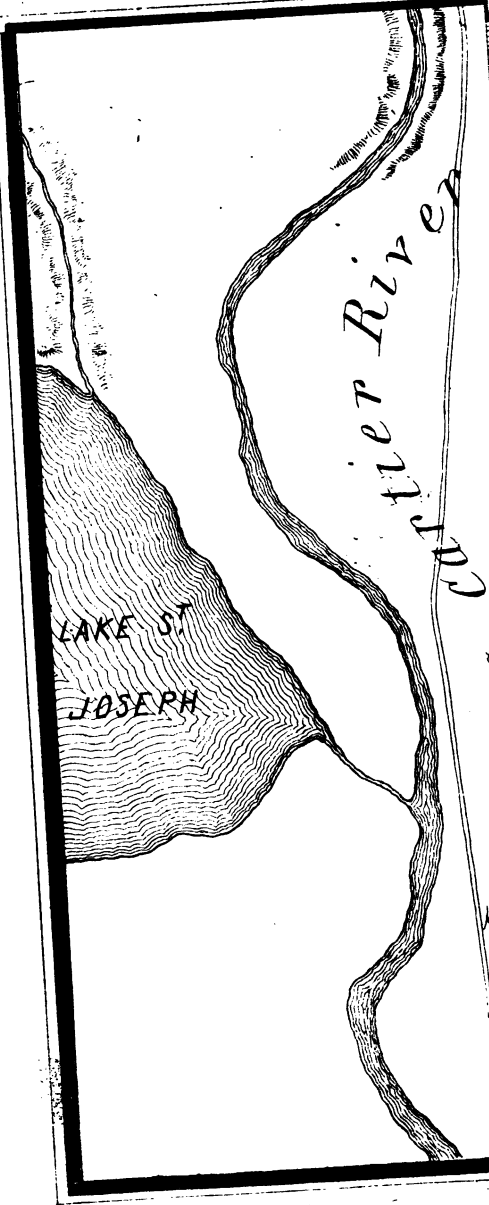
						£	s.	d.
Salaries to Officers and Clerks....	....	....	....	....	....	1236	19	5
Advertising, Printing and Stationery	....	....	....	....	....	328	17	1
Law Charges for General Business	....	....	....	....	....	49	4	10
Insurance..	....	....	....	....	....	84	8	0
Storekeeper's Wages and Office Expenses....	....	....	....	....	....	81	18	11
Travelling Expenses..	....	....	....	....	....	99	2	5
Miscellaneous	....	....	....	....	....	190	8	11
						2070	19	7

**W. H. A. DAVIES,**

*Chief Accountant.*







GAU

Jacques

**BEE**

From the

**REPORT**  
**OF THE**  
**CHIEF ENGINEER,**  
**ON THE SURVEY OF THE LINE FOR THE**  
**QUEBEC & SAGUENAY RAILWAY.**

**CONTAINING ALSO A STATEMENT OF THE RESOURCES OF THE  
COUNTRY THROUGH WHICH IT PASSES, AND THE GENERAL  
ADVANTAGES TO BE DERIVED THEREFROM :—WITH  
THE PROPOSED ORGANIZATION AND**

**BYE-LAWS**

**FOR THE**  
**MANAGEMENT OF THE COMPANY.**

---

**QUEBEC :**  
**PRINTED BY J. T. BROUSSEAU,**  
**AT HIS STEAM PRESS ESTABLISHMENT, NO. 9, DUADE STREET.**

**1854.**



# PREFACE.

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The Survey and Location of the route for the "Quebec and Saguenay Railway Company," (heretofore called the Quebec Northern Railway Company,) now being complete; the Directors have much pleasure in laying before the Public the Report, Plan, and Estimate, furnished by their Engineer. It is with feelings of much satisfaction that they are enabled to publish a Report so very favourable to the undertaking; which, not only clearly points out the practicability of a Railway being carried far into our back forests; but gives statistical information, shewing that the portion located, is far superior in curves and gradients, to some of the best and most paying Railways in the United States.

The Estimate, for the construction of this Railway; is calculated from the highest prices of labor and materials at present existing:—But, as in the judgement of the Directors, a very material saving may be effected, by the Company engaging the services of an efficient Engineer to superintend the construction of this short line of Railway, they hope to build it considerably under the estimated cost; particularly, should the prices for labor, iron, &c., happen to fall. Although it was intended in the first instance to have estimated for a Railway of a cheaper description than the one now proposed, it soon became evident to the Engineer,

that the amount of traffic which would pass over it, would render a heavier and more permanent description of road imperatively necessary, as will be seen on perusal of his Report.

As, therefore, no physical difficulty has to be encountered, in the formation of the road, and, as its construction cannot be otherwise than beneficial to every Citizen of Quebec ; the Directors with much confidence now bring the subject in a proper form before the Public ; which could not have been done at an earlier period, in the absence of a Charter, and a proper survey of the proposed route.

If this Railway had no other source of profit than that to be derived from supplying fire wood, the knowledge that fuel is a necessary of life in this cold climate, and must be purchased by every individual ; with the certainty, also, that it can be purchased from the Company at a cheaper rate than it can be obtained elsewhere, is a sufficient reason for at once constructing it ; but the Return furnished at the conclusion of Mr. Fosdick's Report, shews that a large amount of produce, &c., may be expected to pass over the road, and materially contribute towards the profits. It will in fact be the means of opening out to settlement a vast extent of valuable land, and bring to our Markets the fine timber which abounds along its route ; and incalculable benefits will be derived by the back Country of Quebec, from its construction.

But sixteen miles (not including turnouts, &c.,) require to be made, to ensure a certain supply of fuel for some years to come, at a low and uniform price ; and it is only necessary for it to be borne in mind that the sum lately, and now paid, viz :— from 10s. to 15s. a cord over what this Company could supply it for, would amount, on one year's consumption, (100,000 cords,) to from £40,000 to

£50,000 per annum, almost sufficient to build the Railway; and, that should fuel maintain its high price for two years more, every family, whose consumption of fuel annually exceeds 12 cords, will expend as much money, unnecessarily, as would purchase one or more shares.

The Directors cannot then but sincerely hope, that there are but few citizens in Quebec, both for their own interests and the general welfare of the City, who will not at once come forward, and form themselves into an ASSOCIATION for carrying out this enterprise; for, if they will but give it prompt support, firewood can be cut this winter, and the Railway completed and in operation next Autumn. It now rests entirely with themselves; and, in this instance, when a general benefit is offered to the City, where no monopoly is intended, or speculation contemplated, the undertaking surely will be viewed in its proper light, and ably supported.

It has been rumoured that this Railway was first proposed in order to benefit by its construction some persons possessing lands on the line of route. To this the Directors desire to give the most positive denial, as neither they, nor their Officers, possess, or did possess, a single foot of land through which the Railway runs, or even hold land within some miles of it; and only one of the present shareholders (living in the neighbourhood of Lorette), possesses land on the line of route. Had such been the case, the Directors themselves would have been the first to expose it; they supported the project because they (not being prejudiced) considered it a feasible, profitable, and praiseworthy undertaking:—And they take this opportunity of expressing their thanks to the present shareholders, for so liberally contributing towards the payment of the preliminary expenses

attendant on a good survey, and final location of the Railway.

It was their intention to have made some remarks with regard to the hope of ultimately connecting this Railway with Lake St. John and the Saguenay Territory. The present Reports however have occupied much space ; at a future period, therefore, this subject will be brought in a more general manner before the Public ; moreover, the Directors did not consider themselves warranted in expending the funds of the Company on any other object than the first portion of the project. In the spring of this year, the Country was explored by Mr. Boxer the Secretary, and Mr. J. Bignell, P. L. S., as far as the height of land separating the waters of the Saguenay from the St. Lawrence ; and those gentlemen are of opinion that it is quite possible to construct a Railway as far as they explored, and that no difficulty, whatever, exists to the construction of a good plank, or common road, the whole way to Lake St. John ; however, after the first portion of the Railway is built, ample time and opportunity will be afforded for having a thorough exploration of the whole of that Country, and making a trial level through to the Lake ; and should no physical difficulty then present itself as a bar to the construction of a Railway in that direction, it would be the object of the Company to endeavour to connect the Saguenay with Quebec,—in the first instance, by a good road, and the Railway could hereafter be continued on in that direction, should its prospects, in course of time, render such an undertaking desirable.

In concluding these remarks the Directors desire to testify, to Mr. Fosdick, their sense of the efficient manner in which he has performed the duties entrusted to him, as well as for his studious economy in conducting the survey. To his Report and



to the Secretary's the Public are refered for every information in connection with the subject, and the Bye Laws, approved of, will give an idea of the Working system intended to be adopted.

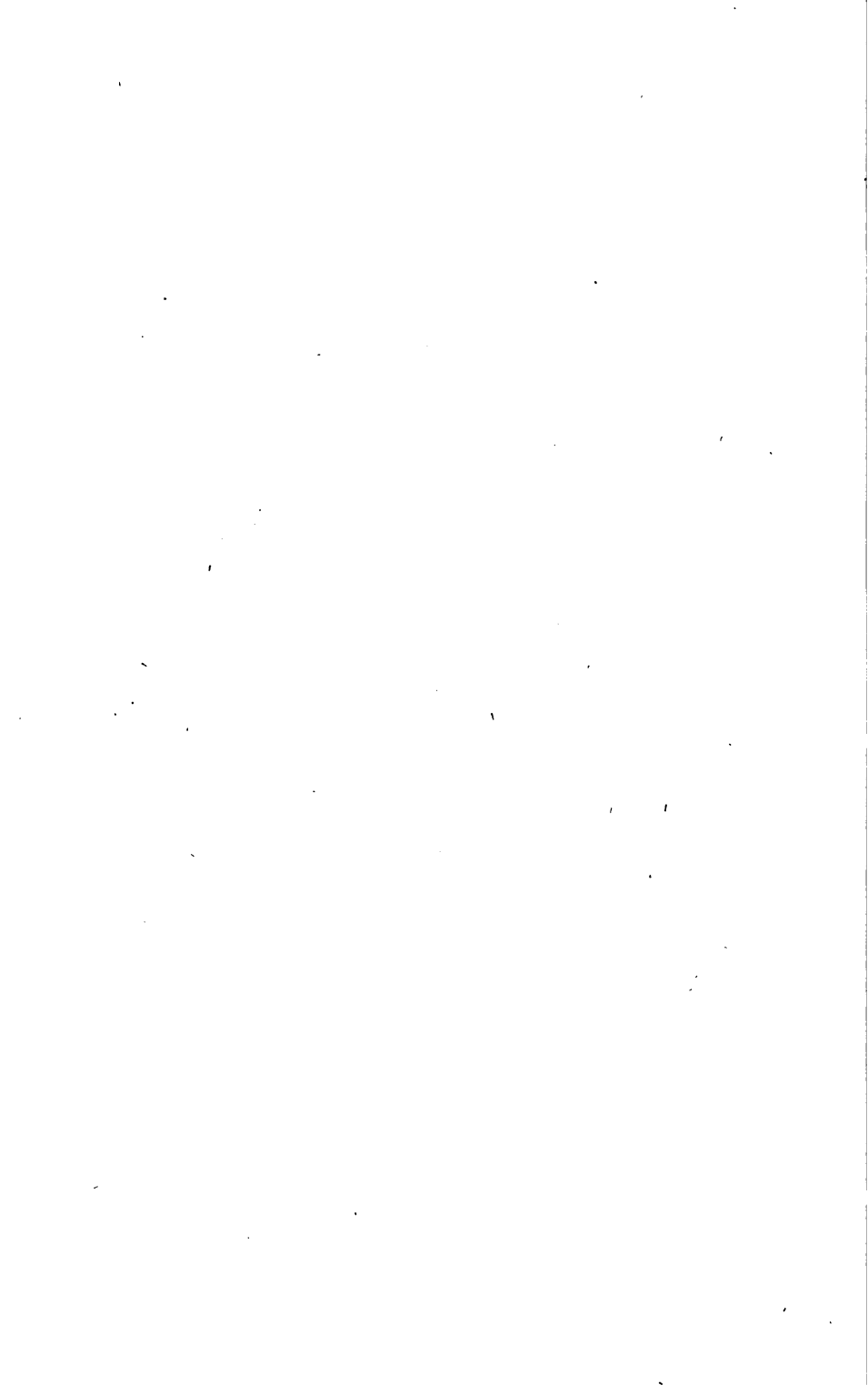
So soon as this Report is distributed throughout the City ; Agents, specially authorized by the Company, will call upon the Citizens to subscribe towards the undertaking ; and the Directors can only repeat the hope, that there are few who will not at once take stock in the Company, so as to avoid any delay in putting the project into immediate operation.

By Order,

F. N. BOXER,

Secretary.

Quebec, 24th October, 1854.



ENGINEER'S OFFICE,  
QUEBEC, 20th SEPTEMBER, 1854.

**To the President and Directors of the QUEBEC  
and SAGUENAY RAILWAY.**

GENTLEMEN,

On the 8th July last, a set of instructions was placed in my hands by your Secretary, from which the following is an extract.

“Commencing at what may appear in your judgment, the most suitable place for a Terminus and Depot, immediately below Sauvageau's hill, in the suburb of St. Roch, you will be good enough to have a trial level made of the proposed route between Quebec and the River Ste. Anne.”

\* \* \* \* \*

“When this line of levels has been ascertained, the Company wish that your party in returning, should locate the first portion of the line, namely, from the River Jacques Cartier to Quebec; and on the completion of the service to furnish them with the usual plans and sections; together with an estimate of the expense of constructing the road as far as the south bank of the Jacques Cartier River; and to state the additional cost of substituting a light T rail for the proposed one of plate iron,\*\*\*\*\*and you will be good enough to make a full report, in order that the Directors may publish the same for the information of the Public.”

(Signed,) { P. J. O. CHAUVEAU, Pres.  
                  { F. N. BOXER, Secry.

In compliance with those instructions, a party of Engineers was duly organised, and put on the route on the 10th July.

Owing to the absence of all reliable plans of that section of country, and to the fact that no record of levels existed, all the difficulties naturally occurring in tracing a line through the forests, over such a broken and heavy country, presented themselves; and more time was required for our operations than would have been necessary, had we known, in leaving one stream, what summit we had to overcome to reach the next. The party, however, have been very fortunate, but little time having been lost in retracing.

By the aid of the accompanying Map and Section, the following description of the line, as surveyed, will be rendered intelligible.

Commencing at the foot of the ridge called Sauvageau's hill, in the lot of ground belonging to the Nuns, the line crosses the level flat that extends from this ridge to the Lorette ridge in a North Westerly direction to the "Bend of the St. Charles River," near the Commissioners' Bridge, a distance of  $3\frac{1}{2}$  miles. Here the line takes a more Northerly direction, in order to reach, as early as possible, the sloping ridge under St. Ambroise Church, which slope offers the only means of surmounting Lorette ridge, and reaching the elevated table land in the rear.

Near this Church, at a point  $7\frac{1}{2}$  miles from point of our departure, the line again deviates and assumes a North Westerly direction; working up this slope to the Mill, known as Sebastien's Mill,  $9\frac{1}{2}$  miles, from Quebec; there turning Northerly, and again North Westerly, it follows up the gorge formed through the ridge by the mill stream "Ruisseau St. Berbe," to the elevated plain, reach-

ing this plain near the Indian Cocock's residence,  $10\frac{8}{10}$  miles from Quebec.

From this, to the Jacques Cartier River,  $5\frac{2}{10}$  miles, the general direction is North Westerly, crossing the Jacques Cartier near the house of one Sullivan at the Falls; thence 4 miles to near Denis Clerc's Mill, crossing this Mill stream, and descending to the "Rivière Au Pin," distant from point of departure 22 miles.

The Rivière Au Pin is crossed between the mouth of the Rivière Lac a L'Isle, (coming into the Au Pin from the West,) and the house of Henry Crawford.

Thence the line follows up the Northern side of the valley of the Lac a L'Isle River, 4 miles in a North Westerly course to the Lac a L'Isle; passes this Lake along its northern shore to its head, crosses the inlet, and winds up the inlet to Grand Lake,  $29\frac{2}{10}$  miles from Quebec; follows the Southern side of Grand Lake to its Western extremity, and here reaches the summit between Jacques Cartier River and the Ste. Anne, at a distance of 30 miles from Quebec.

From this summit to the Ste. Anne, a distance of  $2\frac{1}{2}$  miles, the line deviates a little to the northward, and descends along the slope of the mountain, lying to the north and west; reaching the Ste. Anne River, at a point,  $32\frac{1}{2}$  miles distant from Quebec.

Here our explorations terminated; and it is proper to add, that, as our instructions were, merely to ascertain the levels of the various summits, after passing the Jacques Cartier River, (with a view to decide the practicability of a line at some future period) we have not, in every instance, succeeded in placing the line upon the most favorable ground at the first trial; and, generally, have avoided retracing our lines in the belief that the object in view would be effectually accomplished,

and a saving in time and expense effected. A future *location* therefore ought to reduce the distance above given.

Enough has been gathered to furnish the information called for in the instructions, and to establish this fact,—a feasible line of Railway can be constructed from the Jacques Cartier to the Ste. Anne with no grades more difficult than those upon many first class lines in this Country.

The curves and grades may be more severe than those upon the portion located, but not impracticable for such a road.

Upon the completion of the above operations, the party returned to the Jacques Cartier River, and commenced an approximate location of the line to Quebec.

This portion, therefore, is in a condition to be more fully reported on, and detailed estimates are herewith presented.

It was deemed unnecessary to establish all the curves upon the ground, inasmuch, as the limited means at our command, rendered desirable the utmost economy, so as to obtain the fullest information as to cost and grades, with the least expenditure.

Most of this portion being in the woods, more than double the time must have been required, had we attempted to effect a complete location. The line has been established by short lines, or chords, and these furnish for our investigation, data sufficiently correct, and serve to mark out the future path of the Railway should any efforts be made to secure the right of passage.

The track, as far as the Commissioners' Bridge, will be level, or nearly so, a distance of  $3\frac{1}{10}$  miles. At this point it will ascend at the rate of 85 feet per mile for  $1\frac{5}{10}$  miles, to overcome the secondary ridge sloping down from Lorette. But little oppor-

tunity is here afforded to take advantage of the slope in ascending,—the line is forced to encounter the ridge nearly perpendicularly to its face, in order to render available, as early as possible, the side hill of the main Lorette ridge near St. Ambroise Church.

From the end of this 85 feet gradient, the track rises at the rate of 44 feet per mile for  $1\frac{1}{10}$  miles, to near the aforesaid church, then ascends by Sebastian's mill, up the gorge to the table land near Cocock's house, at 85 feet per mile for  $3\frac{1}{10}$  miles.

From this point, having reached the general level of the elevated plain in the rear of Lorette, at a height of 575 feet above Quebec low tides, the track will gently ascend, at an average rate of 11 feet per mile, till in  $4\frac{1}{10}$  miles it has reached its greatest elevation, 600 feet above the St. Lawrence

From this point to the Jacques Cartier, where we complete our location and estimate, the track for the present should be level, till it shall have been decided to extend the construction across this River; then, a slight descending gradient may be admitted, so as to cross the river as low as the banks upon the opposite side will allow.

No curves are adopted of a less radius than 1500 feet, and but six of these with an aggregate length of 3 miles. The remaining curves will be of more than one mile radius.

Near the bend of the St. Charles we have two lines established; one passing in the rear of "Wood's Tavern," the other in front, on the opposite side of the road. The cost of each will be nearly equal; one will pass so near many buildings as to involve an expense for damages: the other will require the formation of a heavy embankment. The selection of the future line here, will depend upon the respective cost of each. In the absence, at present, of

necessary details, I should recommend the Western route.

The point we assume as the terminus of our location, and at which our estimates also terminate, is near the St. Catherine road, 15½ miles from Quebec. At each end, we have estimated for an additional length of track of 2 miles, for loading, unloading, passing trains, and for empty waggons to stand upon, &c. giving an increase of 4 miles, or, a total of 19½ miles to construct.

The subjoined estimate, is deduced from our examination, and is based on the following assumptions. Width of road bed in excavation, 20 feet; on embankment 15 feet. Small bridges and culverts of good rubble masonry, laid in mortar. The road bed is to be covered with good clean ballast to a depth of 18 inches. A building is intended at Quebec for the accomodation of Passengers and Freight, Wood and Water: A Car shed, and general Store House for housing passenger cars, &c. in the winter. A small repair shop and a shed for 3 or 4 Engines and Snow ploughs, will be required at Quebec the first year, or as soon as the line shall be opened.

At Lorette is a siding, arrangements for Passengers and Freight, and for wood and water.

At the Jacques Cartier, also, a similar provision is intended.

All the buildings estimated for, are of wood and of a plain character.

In the estimate for track, two styles of superstructure are separately estimated, as by the instructions prefixed to this Report, one to be a "plate rail" or "strap rail," and for the other, I have selected the form of rail known as "Bridge rail" or "inverted U rail;" as I deem this best combines the two requisites, minimum of material,



with maximum of strength ; and a very light rail being called for, it is specially desirable to have all the available strength of the iron.

I am constrained by the nature of my instructions here again to limit my estimate to a cheap rail. I apprehend, however, that the interests of the Company will require, sooner or later, a heavier pattern of rail than I have estimated for :—Should the price of iron fall, to the rates at which it has ruled for a few years past, the present estimate will allow the requisite increased weight of rail.

This question should receive due attention, before the adoption of any pattern is decided upon :—the present estimate, however, answers present purposes.

In the Estimate for Plate Rail track, the form of superstructure most approved of is adopted,—Rail  $2\frac{1}{2}$  by  $\frac{3}{4}$  inches, spiked to longitudinals of hard wood : Spikes  $\frac{5}{8}$  square 6 inches long, countersunk : Longitudinals, 6 ins. by 6 ins. sunk into the ties  $3\frac{1}{2}$  ins., and properly confined by hard wood wedges : Ties 9 feet long, 6 ins. by 8 ins., placed 2 feet 6 ins. from centre to centre ; the whole imbedded in good ballast, placed upon the road to a depth of 18 inches.

For the “ Bridge Rail Track,” is intended thus ; Rail to weigh at the rate of 70 Tons per mile : Chairs 7 lbs. each, wrought iron : Spikes,  $\frac{5}{8}$  inch square, 6 ins. long, hook headed : Ties, 6 ins. by 8 ins., 9 feet long :—the whole imbedded as before in good ballast.

## ESTIMATE OF COST.

Cost of Railway with the		Totals.			
		Bridge Rail.		Plate Rail.	
		£	s. d.	£	s. d.
Clearing and grubbing, . . .		500	0 0	500	0 0
EXCAVATIONS.					
	cube yds.				
Earth exn. incld. haul, 157,679		7883	19 0	7883	19 0
Solid rock do. . 16,163		4040	15 0	4040	15 0
Loose rock do. . 5,120		768	0 0	768	0 0
Foundations & brook diversions . . . 10,950		684	7 6	684	7 6
MASONRY.					
Arched culverts and small bridges, . . 1,323		1653	15 0	1653	15 0
Box culverts and cat-tle guards, . . . 1,207		1056	2 6	1056	2 6
Rip rap or protec. wall, 630		230	5 0	230	5 0
Timber in foundations and bridge superstructure.. . .		250	0 0	250	0 0
				3190	2 6
				13377	1 6
				13377	1 6
				3190	2 6

## PERMANENT WAY.

Sub sill, hemlock, 3 by 10, 20 miles, . . . . .	2640	0	0	1855	0	0	
Ties do. 20 miles, 2112 p. mile, . . . . .				2112	0	0	
Longitudinals, hard wood, 6 by 6, 20 miles. . . . .				1899	0	0	
Wedges, hard wood, 4224 per mile, 20 miles. . . . .				220	0	0	
Rails 70 tons and 30 tons per mile, 20 miles. . . . .	19250	0	0	9000	0	0	
Chairs and spikes 3½ tons and 1½ tons per mile, 20 miles, . . . . .	2450	0	0	1050	0	0	
Points and crossings, 20 miles . . . . .	300	0	0	300	0	0	
Distributing iron, ties, timber, &c., and laying track, 20 miles, . . . . .	4700	0	0	4400	0	0	
Ballasting 4000 cube yards per mile, 20 miles. . . . .	4000	0	0	4000	0	0	
Lorette siding, (track and ballast,) ½ mile. . . . .	850	0	0	600	0	0	34190 0 0 25436 0 0
Amount carried forward, . . . . .							£ 51257. 4. 0. 42503. 4. 0

	Cost of Railway with the			Totals.		
	Bridge Rail.	Plate Rail.		Bridge Rail.	Plate Rail.	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.	
Amount brought up. . . .				51257 4 0	42503 4 0	
<b>ROLLING STOCK.</b>						
3 Locomotives, 15 tons each,						
4 Drivers, coupled, . . . . .	5550 0 0	5550 0 0				
1 Passenger car, (1st and 2nd class) . . . . .	500 0 0	500 0 0				
1 Box freight car. . . . .	175 0 0	175 0 0				
80 Platform cars (for wood &c.)	12400 0 0	12400 0 0				
2 hand cars, for road repairs, .	50 0 0	50 0 0				
1 Snow plow. . . . .	140 0 0	140 0 0		18815 0 0	18815 0 0	
<b>BUILDINGS.</b>						
Station House, Engine Sheds,						
Shop, &c.: Quebec, . . . . .	1400 0 0	1400 0 0				
Station House, wood and water fixtures: Lorette. . . . .	350 0 0	350 0 0				
Station House, wood and water fixtures: Jacques Cartier, .	300 0 0	300 0 0		2050 0 0	2050 0 0	

## SUNDRIES.

Ballasting Station yards. . . .	600	0	0	600	0	0
Fencing, (includg. Terminus.) . .	2880	0	0	2880	0	0
Road and farm crossings, and road diversion. . . . .	76	0	0	76	0	0
Land for road way. . . . .	2000	0	0	2000	0	0
Land for Stations: Quebec and Lorette. . . . .	2000	0	0	2000	0	0
Damages to property, (build- ings, land, &c.) . . . . .	2000	0	0	2000	0	0
Engineering and Agencies, Office expenses &c. . . . .	1600	0	0	1600	0	0
Contingencies, interest on in- stalments & loans, 10 p. ct.,	8503	0	0	7452	0	0
	Total cost, £			91781	4	0
	Cost per mile, £			4589	1	2
				4098	16	2

NOTE.—In this estimate no Turn-tables are included, as the arrangement of the Tracks at each end, will be such as to obviate the necessity.

Gauge 5 feet 6 inches.

Cost assumed in Estimate of Revenue £100,000, on which to divide the Profits. This amount will be required for the "Bridge Rail Track," which is the style of track recommended for the Company.

This sum will put the road in working order, and will furnish equipment sufficient for the first year's operation. An amount, however, must be provided for the purchase of a large track of land capable of furnishing a supply of wood for 10 or 15 years ; and also provision must be made for the first year's cost of laborers, in chopping and delivering the wood upon the line, until the Company shall be in a position to defray this expense from the receipts of their traffic.

We have allowed for these two items as follows ;	
For the purchase of wood lands, . . . .	£10,000
For the first year's labour chopping and delivering at line, including houses and barns for men and horses, provi- sion, provender &c. . . . .	30,000

Estimated amount to be raised by loan.	<u>£40,000</u>
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It must be admitted that the Estimate is liable to be considered too low and meagre. It is far too low for a first class road, through such a district involving such heavy gradients. Still, it will be borne in mind, that the instructions merely point to such a road as shall be capable of supplying this City with fuel at a reasonable cost. This Estimate will effect that. To what extent it may be advisable to expand and enlarge the expenditure to secure any traffic likely to offer itself, other than that herein assumed, is not for the present investigation to determine.

The desired object is to expend just so much, and no more at present, as will suffice to establish a low rate for the price of firewood throughout the year ; and bring back, to those investing, a fair return for their capital. Any other business besides the carrying of firewood that this expenditure can accomodate, we have a right to assume in our

estimate of profit. Further than this we do not go, but shall endeavour to show how this expenditure of £100,000 may be made profitable; merely premising, that, by constructing a different sort of line, increasing its facilities, and enlarging the expenditure, there is good reason to anticipate a proportional increase of return.

In this section of the country, the construction of a Railway depending for its support principally on the conveyance of fuel is perhaps a novel project. Still it need not be deemed an experiment.

The Reading Road, in Pennsylvania, does an immense traffic in Coal.

The amount of freight in Coal alone this year, was 1,600,000 Tons; yielding a revenue of £800,000. That it is a paying article of freight may be inferred from the fact, that it is conveyed upon that road at a cost of one half a cent (or about one third of a penny) per ton per mile.

This of course would require each train to carry sufficient coal to call into action the full power of the Engine. It is believed that upon your road this requirement will be met. If it be admitted, in the premises, that a sufficiency of firewood exists at one end of the line, and a ready market at the other, it would appear that the success or failure of such a project as this now under contemplation, is reduced to a mere question of practicability in working the line when completed.

It would be a difficult matter, without bestowing more time and reflection than has been afforded by the limited examination devoted to the preparation of this paper, to mark out, precisely, the proper mode of working the trains so as to produce the best result. A little time would be necessary to develope, by actual operation, the proper method.

Without entering into a discussion here, as to the existence of a sufficiency of firewood, at the further extremity of your road, to meet the demand at this end, I shall assume this to be a fact; and pass to a hasty view of how this immense quantity of wood can be delivered, in order to supply the demand; giving as my opinion, that upon either side of the line, within a reasonable distance, wood may be profitably brought to the trains; and that within this limit there exists a supply equal to the demand of the City for the next fifteen years.

This opinion is not based on any professional skill, but has been formed by a simple process available to all, namely, personal observation and enquiry on the spot; a similar process I would recommend to all who may differ from this opinion.

By an admirable and ingenious arrangement, the Secretary, F. N. Boxer, Esq., has obtained reliable data sufficient to form a very accurate estimate of the amount of fuel consumed yearly in Quebec. From these data we find not less than 78,000 cords are consumed by private families, stores, &c., and 20,000 cords, by Public Institutions, Offices, Hotels, &c. Those who found it convenient to come to the City for a load of groceries or other articles for the country, would doubtless often deem it to their advantage to come in loaded with wood. Many would probably, especially those in the immediate vicinity of Quebec, endeavour to compete with the Railway; while also a large number of traders would take their wood of the farmers, in barter, rather than of the Railway Company.

For these various sources of supply it is deemed safe to allow 10 per cent, or 10,000 cords; this gives to be furnished by the Railway 88,000 cords, per annum.



Let it be supposed the line will be worked for eight months only during the year; the remaining four months being deemed too severe to allow of operating with economy. Three Engines are provided in the estimate for the first year's operations. With these, four trains a day, upon an average of 26 days a month, may be taken down to Quebec. This allowance of time will give sufficient margin for ordinary repairs to the machines.

Thus 460 cords a day or 12,000 cords a month can be delivered in the yard at the Quebec terminus. There would be four sets of waggons; each Engine taking up a train of empty waggons, and at once returning with a loaded one;—trains passing each other at the Lorette siding. Two gangs of men will be engaged constantly; one loading at the upper end, the other discharging at the Quebec end.

True, this mode is taxing the Engines rather too much; still, in the article of ice, which is extensively conveyed on some lines, at the present time, and also in coal, a similar course has been pursued; we have therefore estimated for but 3 Engines to do this work. After the first year's operations, however, the state of the machinery and cars will be such, that an additional equipment must be provided even to do the same amount of work.

To prepare these 88,000 cords ready for conveyance, is not at all impracticable. Suppose all this is to be cut and corded in the woods during the winter season, which of course will be the proper time for labor of that sort. Take the four months during which we have assumed the road to be idle.

An average of 22,000 cords a month, 850 cords a day for these four months will give the required 88,000 cords. It is believed that 500 men will

furnish this ; a number certainly not more difficult to direct systematically than the same number in a lumbering operation, or than 1200 men upon a work like the Victoria Bridge.

A proportional number of men and horses would be required to convey it to convenient spots for piling where it would be accessible by the trains.

It would not be necessary to pile all this upon one locality. The last mile of track could be easily arranged by a little mechanical appliance, so as to be moved laterally to the different localities ; 6000 to 8000 cords, more or less, being piled where most convenient. Occasional branches, cheaply formed, could be run out to the different "chopping berths" even with severe inclinations, over which the waggons could be run down by their own gravity to the main line, with more expedition than by the usual horse and sled, and be drawn back again by horses.

Even if the whole estimated demand of 88,000 cords were hauled and placed along both sides the line, it would require but one mile of track, by piling 10 feet high, and back from the track but 100 feet. This could all easily be loaded by sliding the track laterally from time to time as the work of loading and taking away progressed.

This hasty examination is not intended as giving the only mode of working ; but merely to bring to your notice, one of many methods, by which, what at first might appear impracticable, is shewn to be capable of as systematic management as many, or indeed, most other railway operations.

Of the delivery in Quebec, from the Terminal yard to the various dwellings, but little will be said. This branch of the operation should be kept as a separate department. Agents, teams, men, &c., should be distinctly managed and a separate system of accounts be kept to avoid confusion, and

the better to ensure a profitable working of this branch of the enterprise. With good management, this may be made a most valuable source of profit to the Company.

Men and horses should be *owned* by the Company and kept in daily duty for the entire year.

A daily delivery of 330 cords from the yards would supply the amount yearly furnished. Fifty teams properly equipped, would deliver this. What mode of delivery would give the best result, what would be the proper system of management for this department, as to accounts, orders for wood, mode of payment, &c., need not be discussed. It is perfectly practicable, and may be made profitable.

To enable teams to deliver throughout the winter, while the road is idle, the yard is estimated of such a size as to contain from 30,000 to 50,000 cords, independent of tracks, sidings and appurtenances.

I do not deem it absolutely necessary that the Railway should remain idle during the winter; I have assumed this in the foregoing examination, merely to exhibit the working under the most unfavorable circumstances. Indeed, a daily train to Lorette, and perhaps to the Jacques Cartier river, will be able to pay all costs of working, and in view of keeping up a communication with the operation in the forest, conveying supplies, &c., may very likely be deemed advisable. By this means, the operatives of the line could be retained throughout the year in active service; a circumstance very essential to a proper and efficient management. These four months, of comparative leisure, would give ample opportunity for the repairs of machinery and cars for the next season's duty.

The ascent up which all this wood must be hauled to reach upper town is most favorable. It

has been objected to the Terminus as proposed, at the foot of Sauvageau's Hill, that it is too far from town. This objection is not as weighty as at first might appear. The yard is as well situated for all parts of the City *outside* the gates, as any that could be chosen, being convenient to the suburbs of St. Roch and St. John. For access to upper town, to which a large proportion of the wood will be taken, no point offers better facilities. A street can be made leading from this site to St. John's gate, with an ascent of only 5 feet in 100, or one half the ascent of Mountain Hill, over which so much is daily taken of heavy traffic. This then gives equal facility with any other locality situated but half the distance, and requiring the passage of each load over Mountain Hill or some other equally steep ascent: no point is available at a much less distance, if any, from the centre of the upper town population; certainly not at one half the distance. This site may be deemed therefore as favorable as any with regard to distance; and, in view of its isolation, is far preferable to any locality that would require a yard of such an extent to be situated in close proximity to wooden habitations; especially, when this wood yard is to be constantly traversed by Locomotives.

Preparatory to presenting an estimate of the returns from working the line, a few details gathered from the latest Reports of different Railways in the States are here given. From an examination, you may be able to form some opinion as to the ability of your road to do duty with its heavy grades, the nature of the country, traffic and population.

The Western Railway, Massachusetts, has a gradient of 84 feet per mile for 8 miles; crossing the mountains in the western part of the State; yet, this road does an immense freighting business both with and against this grade; conveying annually

from 300,000 to 325,000 tons, four times the general average of other lines.

On the Pennsylvania Central Road, a grade of 95 feet per mile for 10 miles occurs; over this, huge trains of passengers and of freight are daily conveyed.

The Baltimore and Ohio road, a road doing a large business in coal traffic has grades of 111 feet, 116 feet, and 121 feet per mile: and up the 116 feet gradient (11 miles in length, and with curves of a 1000 feet radius) 225 tons have been drawn at a speed of seven miles the hour. The usual daily load is 125 Tons, speed 10 miles an hour.

There are in the Eastern States some 5 or 6 lines using a rail of less weight than that assumed for your road in the accompanying Estimate.

The general average tonnage of freight

conveyed by each train is from	50 to 60 Tns.
Number of Passengers from . . . .	60 to 70.
Average distance each ton is moved .	72 miles.
Do. each passenger moved .	48 miles.
Average cost of running these trains, }	3s. 9d.
pr. mile, varying with speed }	to 4s. 3d.
Average number of Passengers, }	. . . . 4.
per head of population, }	. . . . 1.
Average number of Tons freight, }	. . . . 1.
per head of population, }	. . . . 1.
Average receipts, pr head of population	£1 : 1 : 6.
Average ratio of expense to income }	52 per cent.
varying from 45 to 65 p. ct. }	
Average profit, p. ann., p. ct., on cost, . . .	6 $\frac{1}{10}$ .
Average earnings per mile of road, . .	£2000.
Average general expenses, per mile, }	. . £640.
of single track, }	

To obtain results applicable to your road, based upon the above data, we think we are justified in the following inference.

From the fact that a much less expenditure than usual will be required for offices, warehouses and buildings generally, valuable carriages, numerous engines, fuel, water, losses, taxes, &c., it would appear that the average as actually existing upon the lines above quoted, 52 per cent, will be more than ample, especially when we consider that each train will be fully loaded; a circumstance adding to the profits of a train in a far greater ratio, than to the expense—we therefore assume 47 per cent of the income as sufficient to meet all expenses of operating; indeed, upon some lines, taking uniformly full loads, the average for a period of years is but 38 per cent per annum.

We can hardly take the actual result of operating other lines of Railway, and apply them strictly to yours, owing to a want of entire similarity in character. Most lines are for traffic passing each way: yours will do a business principally in one direction. Other lines, in general, depend on local trade, and upon Passengers, for support! While both these characteristics will be wanting, or exist only in a limited degree on the line now under examination.

However, by a comparison much may be deduced of valuable and reliable information. If traffic can be accommodated upon other lines, and carried in both directions, with and against their grades, the advantage your line possesses, in having all its grades descending with the traffic, should not be lost sight of, in deciding as to its merits.

For the sake of economy, both in the first cost and also in the operating of the road, I should recommend a light Engine; say of from 14 to 16 tons with all the weight on the drivers—such an engine will draw, though at a reduced speed, as much as the ordinary 20 tons engine, with but 15 tons on the drivers, and will do less injury to

the road. Speed not being of primary importance, this plan is decidedly preferable. A speed of 10 to 12 miles an hour will be obtained and will answer all necessities.

This light engine will be able to carry up all the load ever required for some time to come; generally her load will be empty waggons, 15 to 20 making a load.

The curves are so arranged upon the gradients, as to admit of being easily worked. The duty of the Engine will be to take from 100 to 120 cords down, and return with the empty waggons. This will be done, over this line, easily, as now located.

From official returns, we are enabled to arrive at the amount of grain, potatoes, cattle, &c., annually produced in the district tributary to your Line. Assuming that one half of these products are brought to the City for a market, and that this can be conveyed over the Railway, at a less cost to the farmer than by the present mode, we shall have a large traffic in this species of freight. In the estimate of revenue from this source, the prices per bushel, per mile, allowed, are the same as now charged on other Canadian lines for like commodities. For timber, knees, groceries, &c., the same scale of prices also is allowed.

One item does not enter into calculation of the amount of revenue. I allude to sawn lumber.—At present there are perhaps no mills that would add much to the revenue for some time.—Still this will eventually be a source of much profit.—Some of the finest mill sites exist on the Rivière Lac à l'Isle in this section. That they are profitable to a Railway Company when upon the line of Road, may be seen in the fact, that one mill upon the St. Lawrence road, not yet one year in operation, cuts at the rate of 10,000,000 feet of lumber per annum, and will pay the Railway Company from

£12,000 to £15,000 for freight, &c. The facilities of this mill for lumber convenient to it can not be at all compared to those alluded to upon your line. The finest pine, suitable for masts and spars, Tamarac, Spruce and Birch exist in exhaustless quantities.

Knees are brought, even now at a great cost, to Quebec. The advantage this Railway will afford the Ship Builder is not trifling. Ship timber generally is becoming scarce in the vicinity. Here is a sufficiency but no adequate mode of transporting it. I am informed, by residents upon the route that there are knees that could bring in Quebec from £5 to £7. 10s. each. The cost of hauling by rail would not exceed 15 shillings.

In this section also is found good limestone; clay from which fire bricks have been made, and the ordinary brick clay; all of which would afford business for a Railway, were it constructed in that direction.

For firewood we estimate the returns, thus:—

Cost of cutting the wood, and delivering along the line at the upper terminus—per cord . . .	£	0	8	0
Sale at Quebec Terminus per cord		0	15	0
Remaining towards working the line, or which represents the item usually called Income . . .		0	7	0

I take the sales at 15s a cord. This may be deemed perhaps too high. However, as the wood will all be of good length, best quality, sound and seasoned, it will readily command that price. The wood also may be culled at the yard; the gnarled and knotty being used for the Engines, the free and clear for the market.

For Passengers, we assume 50 daily each way to Lorette Station, averaging the through and way passengers. At present there are conveyed by



public conveyance alone, during the season, upon an average, 30 a day, to and from Lorette and its vicinity.

The number passing by other means is about double this; and it is believed the increase to travel, this facility would create, will swell the number even beyond that estimated.

### ESTIMATE OF RETURN.

80,000 Cords firewood <i>a</i> 7s. . . . .	30,800	0	0
181,000 Bushels, grain and potatoes <i>a</i> 3d. . . . .	2,262	10	0
50 Passengers, each way, daily for 8 months <i>a</i> 1s. . . . .	1,040	0	0
Timber, knees, spars and masts, . . . . .	200	0	0
Butter, eggs and vegetables, . . . . .	100	0	0
Groceries &c. (Liquors, Teas, Sugars, Molasses and Salt,) . . . . .	50	0	0

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Total estimated receipts, . . . . .	£34,452	10	0
Less 47 per cent expenses, . . . . .	16,192	13	6

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Net Profits, . . . . .	£18,259	16	6
Deduct 6 per cent on loan of £40,000, . . . . .	2,400	0	0

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Remaining for Dividends, . . . £ 15,859 16 6  
or 10 per cent on cost of Line, and £5859 annually reserved for extension beyond Jacques Cartier, and for contingent expenses.

Whatever views may be held by others, I cannot resist the impressions that this project is of importance to the Government Lands lying in that direction. Though the route, as surveyed, does not pass *through* Crown Lands, still, considered as a line hereafter to be extended, these lands become virtually affected, even by the present extent of projected operations.

Let the line be constructed for the distance only of 20 or 25 miles at present, so as to give reasonable hope of a future Railway in that region, and lands now unoccupied and comparatively useless will immediately be taken up by that numerous class of Settlers, who prefer going back into the wilds, and opening anew the forests, provided they see, with certainty, some future access to a market, for the products of their labor.

Already, numbers are watching with interest, the progress of the enterprise, and I have frequently been told by Settlers in that country, that, so soon as they know the Line is to be made, they intend leaving their present sites, after five, ten and even twenty years of profitless labor, and going back upon the interior, where better land is to be obtained, and where labor upon the soil will prove more remunerative.

Even now a sort of panic is created among new Settlers, and those eager to obtain Mill sites, merely because a party of Engineers have been through that Section, and have left behind them a line of stakes marked with certain mysterious Railway characters; and as soon as the Railway shall become a certainty, a rush for land will be made, that will tell upon the value of those lands, in the market.

These Settlers are now dragging out a laborious life of toil and hardship upon the mountain slopes, at points accessible by roads hardly passible; roads made up of a succession of steep rocky ascents and descents, and which effectually forbid the profitable transportation of produce to a market. Yet, but a short distance from these sterile farms, lies a rich and extensive valley, extending, as far as our examinations were made, and from reliable information, we venture to say along the whole valley of the Rivière Ste. Anne.

This tract has been and is shut to all enterprise, owing to the absence of communication with the market. The rivers that pass through it (and it is extremely well watered) are of such a character, as to prevent communication with the St. Lawrence to which they all flow. That this desire exists to enter on these lands, we may mention that among these mountain settlements to which allusion has been made, we have counted five farms in ten, that had been deserted after many years' labor. The dwellings, barns and fences were going to decay; what had once been a meadow is now coming back to it's original wildness; and on enquiry we were told that finding their years of labor unrequited, the former occupants had abandoned their farms and pushed back farther into the wilderness, where more encouragement was offered to toil.

Again, all along at intervals during our Survey, we came upon patches of potatoes and grain; a field cleared up in the midst of the forest, and at a distance of two to four miles from any habitation.

The disposition exists to open that section: let that disposition be encouraged by carrying forward some project that will ensure a communication for new settlers by which to convey their produce, and that line of communication, be it, railway or highway, will immediately develop a rich district, capable of meeting the rising demands of Quebec, for agricultural products.

Where is the back country of Quebec to be found, if not here? Upon what section is she to depend for her future supply of fuel, the demand for which yearly increases, while the supply as regularly diminishes.?

It is reasonable to conclude, that to have furnished, for the past few years an annual amount of 100,000 cords, must have materially reduced

the supply in the vicinity of the City; and it is a matter of doubt whether fuel will ever again be obtained at prices that ruled two years' ago. The evident scarcity of firewood in this neighbourhood, together with the high rate of wages paid for labor upon the Railways and other Public Works to be constructed, will of necessity restrict the future supply to such a limited quantity, as will always ensure high prices.

A new demand for labor has of late been created. The general result follows; that where new prospects are held out, promising better returns for labor, the old accustomed routines are abandoned, even to an unwarrantable extreme. How long such a state of matters may exist, it is impossible to conjecture; or if labor should ever revert to its former channels, still the fact of the non existence of a sufficient forest convenient to the City to supply her wants, remains unaltered.

When it is considered, that yearly from two to three square miles of wood land must be cleared to keep up this supply, it will readily be understood why forest lands have become limited and valuable.

The present time, therefore, above all others, would seem to be the proper one for carrying out some scheme like this, which shall have for its object the reducing the price and regulating the supply of fuel.

The amount of money expended last season by the citizens of Quebec, over and above the usual prices for firewood during previous years, would construct this line of Railway. Prices ruled at an astounding and unaccountable figure. To all appearance, the prices to be paid the coming winter, if stated, would appear fabulous.

To come to some opinion as to the quantity now ready for the market, a few days examination

in the districts from which the supply usually comes, will suffice; and yet by this scheme properly developed, fuel may be furnished at the dweller's door for *one half the price paid on the market stand last winter.*

Furthermore, a very important feature in this project, the price will not be fluctuating as now, depending on the vacillating caprice of labor, but will remain constant throughout the year, the purchaser having it at his option to purchase more or less, at intervals, rather than be compelled to sink the cost of his year's supply at one stroke; an amount often of £50 to £100.

To the poor, this arrangement would be of incalculable benefit; to the rich, the saving effected would be an important item, representing, in the aggregate a large capital.

The coming winter, with its usual freedom from business cares, and its unusual prices of fuel, will afford a favorable opportunity to discuss and perfect the initiatory movements; all others will develop themselves as the enterprise shall be pushed forward.

I have deviated somewhat from the usual routine of an Engineer's duty in making up a Report upon a Survey merely. But so impressed have I become, since my examination commenced, with the increasing demand this City is making for fuel and the necessity of looking, sooner or later, to some other means of meeting this demand than those at present adopted, that I have ventured to lay before you, in this Report, a few opinions that have been forced upon me during this examination. It may serve to turn the attention of the citizens to a favorable notice of the project, prompting them to examine and judge for themselves: if so, I shall not regret having thus expressed myself.

Doubtless, many views herein set forth, may not coincide with the views of all, on a hasty consideration of the subject. A Report on a project like this, must be open to criticism. The discussion has commenced: let it continue.

I ought not to close this Report without expressing my indebtedness to Mr. Boxer, the Secretary, personally, for the valuable aid rendered me in procuring information, and statistical details; and specially for the promptitude with which he has met all my demands for "material aid" while prosecuting the survey.

To this gentleman, as the originator of the scheme, too much credit cannot be given, and his reward for the untiring energy and self sacrifices he has exhibited, should be to see his efforts successful.

I have found the report of Mr. Bignell, a copy of which was furnished me, of much assistance in my explorations.

To the gentlemen, also, who have co-operated with me in completing the field labors, under many annoyances incident to the season and the locality, I must acknowledge my indebtedness.

I have the honor, to be

Gentlemen,

Your obedient humble servant,

H. M. FOSDICK.

# REPORT

## OF THE SECRETARY

TO THE

*Directors of the Quebec and Saguenay Railway  
Company.*

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Quebec, 10th Augt., 1854.

GENTLEMEN,

In compliance with your instructions, to draw up, and submit to you a Report, embracing the resources, and general advantages of this Railway, its proposed organization, and, Bye-laws for its management; also, to afford as much statistical information as possible to obtain, with regard to the quantity of firewood annually consumed in this City, and the probable traffic, and amount of agricultural produce likely to pass over the line: I beg leave for much of this information to refer you to the Report of the Chief Engineer, Mr. Fosdick, which will fully enter into all the details with regard to the construction and cost of the road, and afford much general information in connection therewith.

The purposes for which this Company is established are so various and important, that, probably, not until the undertaking is in full operation, and its benefits conferred upon the Public and felt by the inhabitants of this City, will its utility be properly appreciated. The excessively high price of

firewood last season was severely felt by the citizens of Quebec ; nor does there appear any prospect of the price being less this winter ; it is much to be feared that it will exceed that of last year ; indeed, little probability exists that for many years to come, if ever, the price of firewood, under the present mode of obtaining it, will be reduced to what it was some years ago.

The causes by which its value has increased are various ; in the first place, the rapid strides that this country is making in agricultural improvements, and the numerous public works that are in operation, have so increased the demand for laborers and artizans, that those people, who heretofore could barely obtain a livelihood, now receive full occupation and high wages ; and, consequently, find that they can earn a living with less toil and more profit to themselves near their own homes, than by resorting to the forest in winter to hew wood. Similar causes act upon the habitants ; they find, now that produce is high, and every article raised upon the land brings in the market a full value and a prompt sale, that the culture of their farms is a more profitable occupation, than losing days in the conveyance of firewood to Quebec, too often to the injury of their own health, and destruction to their horses and vehicles. Another reason which will affect the supply of wood by Bateaux, will be the construction of the Quebec and Trois-Pistoles Railway ; for those people who in the summer season supplied this City with the greater portion of its fuel at a small profit to themselves, will hereafter cultivate more extensively their farms, so soon as they possess the facility of a railroad for the conveyance of their produce to market. They will never attempt to compete with this Company in the sale of firewood ; and, as in this rapidly increasing town, the demand for fuel annually



becomes greater, while, at the same time, the forest is receding, it is then to some of the foregoing reasons that the sudden and extraordinary rise in the price of firewood may be attributed.

Such a state of things, if allowed to remain unchanged, would bear most distressingly upon the poor; and be severely felt by that class of persons whose occupations deprive them from benefitting by the general rise in salaries; that has taken place; and it would take from the hard working mechanic a portion of those earnings, which, in time of prosperity, it would be his desire to lay aside as a provision against the casualties of life.

The supply of firewood for the City, is placed first among the advantages to be derived from the construction of this Railway, because the subject is one in which every head of a family is interested,—but, other and very important general benefits will result from it,—for instance, to the shipbuilder, from the immense quantity of wood the country on each side of the line is capable of supplying for the purposes of shipbuilding.

Information derived from gentlemen connected with shipbuilding, makes it appear, that not less than £1,000 worth of timber, consisting of ribs, knees, futtokes, masts, spars, tamarac, elm, &c., are required in the construction of a ship of 1000 tons; all of which is to be found in considerable quantities on the actual line surveyed for the Railway, and which could be supplied at less than one half its present cost; for, it is not the real value of the timber as it stands in the forest, nor the labor of cutting it down, that makes its price when delivered here so great; it arises from the great difficulty of transport, particularly large logs, from the forest to Quebec.

Now let it be taken for granted that in a rapidly advancing port like Quebec, 40 ships will hereafter

be annually launched from her shipyards; and that the value of the timber for constructing them will amount, on an average, to £1000 per ship, or £40,000 for the 40 vessels: at least, then, one half of this valuable wood, could, by means of the railway, be obtained from the forests through which it passes; and, if it can be furnished at a lower price from this source, than it can be obtained elsewhere, the probability is, that as the timber is abundant, and of good quality, nearly the whole will be brought to Quebec by this line, and conveyed along the North Shore Railroad close to many of the Shipyards.

This is indeed a matter of serious consideration to shipbuilders; and it behoves them for their own interests, to give every encouragement and support to the present undertaking; they might then find it advantageous to send their own men to the forest to choose the most suitable wood, and provide a supply with the certainty of obtaining its transport whenever required: also, they might better estimate the price at which they could sell their ships, when certain of the cost of the timber for their construction, which would be of a superior description to what is usually obtained; for, it is a well known fact, that the shipbuilder is often obliged to take inferior wood, when purchasing in lots, in order that he may obtain the good pieces which are mixed up in them.

To the builder, it is also a matter of much consideration. At present, good stone has to be brought to Quebec from a distance, and at a heavy cost: now this Railway passes over, and near to, many superior quarries.

Excellent lime stone is to be obtained on the actual line; and from the forest growing near it, lime might be made and sold at a moderate price, for its transport would always be certain, and the cost for con-

veyance trivial. No material for building is more fluctuating in its price than that of lime—sometimes varying from 50 to 100 per cent from what it sold at, a few days previous; its value in the market much depending upon the state of the roads;—the supply, however, is always uncertain.

Very superior clay for potteries, and brick-making, has been discovered; and there is no doubt, but that in a few years, extensive manufactories will be established there.

The contractor, then, possessing the advantages of rapid and cheap transport for such important items as stone, brick, and lime, may hereafter safely calculate on the certainty of obtaining these materials at his estimated price; and the mills of the company will supply him with every description of small lumber; such as tongued and grooved planks, doors, window-sashes, blinds, laths, studs, shingles, &c., on which he may depend when mechanics are not readily to be obtained. Thus, not only will he be benefited, but his employer will have the satisfaction of seeing his edifice completed at the stipulated time. Too often have some of our best contractors suffered from the great difficulty of obtaining the materials they were bound to supply by the conditions of their contracts.

But to the agriculturist and to the new settler, perhaps greater advantages will accrue than to any other class of society; for there is not a habitant, within some miles of the road, to whom it will not afford a material benefit; as once established, cheap tram lines, answering also the purpose of common roads, could be made; for instance, one might extend along the level line from Lorette to Charlesbourg, and secure the traffic of that portion of the country, which would find its way to Quebec (although by a circuitous route) in one half the time and less than one half the expense

now incurred, other branch roads will in time be extended in various directions, and soon a material change will creep over the country; the habitants will not be long in discovering that were it took them 3 days, with a single horse to bring one cord of 3 feet wood to Quebec, they will hereafter deliver from 12 to 15 cords in the same time on the line of the railroad, and with more profit to themselves; and were it before cost them much exertion to convey hither heavy ship timber; that the shipbuilder himself will purchase it from them when delivered at the rails. No longer will it be necessary for them to bring their produce to Quebec in small quantities, and lose both their own time and that of their horses, which might be otherwise and better employed; a new system of things will be established; the stall keepers, possessing the facilities of conveyance, will proceed to the country and purchase up the produce in large quantities, which will have the effect of establishing better markets, and ultimately a better market place. The agriculturist will thus be enabled to employ that time, which is now lost to himself and in the labor of his horse, in the conveyance in small quantities of the produce of his farm to Quebec, to the more profitable employment of cultivating his land, feeling certain that he will always be able to dispose of its produce, within a short distance of his own door.

Since Railways have been established in England, it has been proved before a select committee of the House of Commons, that the loss of value through the decrease of weight in horned cattle, produced by the fatigue of the journey, which were before driven to the Smithfield market, amounted annually to £675,000. Each animal losing so much per cent according to the distance driven, and the flesh much deteriorated from being bruised by heartless

drovers, and from the animals being slain in heated blood.

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The following is an estimate of the traffic likely to take place on this Railway, when extended beyond the Jacques Cartier, and of the profit which may be derived therefrom, and is arranged under the following heads.

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#### *Firewood.*

In the first instance much pains have been taken to ascertain, as nearly as possible, the actual quantity of fuel annually burnt in the City; and the result of this enquiry proves, that upwards of 100,000 cords of firewood are yearly consumed in Quebec, and which consumption will annually increase as the City becomes extended.

But as the Company cannot depend upon obtaining so large a quantity of wood from the surrounding country, it will be necessary to purchase a large tract of hardwood land (which can be obtained in abundance in the neighbourhood of the Railway) and to organize a party of choppers expressly for cutting the wood during the winter season; and ample work could be found for maintaining these men during the remainder of year, in extending the Railway and constructing other works in connection therewith.

250 men in six months would cut 60,000 cords of firewood, and the remaining quantity required (40,000 cords) to make up the full complement necessary for the consumption of the City, might be contracted for.

The employment of a party of choppers would prove an effectual check to exorbitant tenders being made for the supply of fuel; as the Company will always have the alternative of increasing the number if necessary, in order to obtain the full quantity required for the use of the City.

Sixty horses, with drivers, could bring to the Cars (in a forest, commencing at the Railway, and extending 2 miles back) on an average 6 cords per day; and 40 men, aided occasionally by the carters, would be ample for loading the carts, and afterwards piling it on the Platform Cars.

When the Company is regularly established, it will doubtless be more economical to furnish provisions for the whole party, and engage the men by the month, on the system of lumbering establishments: but for the present it is prudent to assume the highest rate of laborer's wages as the basis for estimating upon.

And here mention may be made of the advantage the Company will eventually derive by purchasing the land off which they cut their firewood; as much valuable lumber will be found thereon, and the land itself, from its proximity to the Railway, will become so increased in value, as to repay its first cost, after stripped of its timber; and the Company will be enabled to confer many advantages on steady farmers who may settle on the soil.

Many of the men employed on the works will gladly settle down with their families in the locality of their labor, and every inducement should be held out for an extensive colonization of this back country.

The following is an Estimate of the cost of cutting 60,000 cords of wood, and delivering it at the railway.

Interest on £7,500, the assumed value of 20,000 acres of forest land, . . . . .	£	450	0	0
250 men engaged 150 days in cutting 60,000 cords of wood a 5s. each, per diem, . . . . .		9,375	0	0
40 men employed 150 days in piling wood &c. a 5s. each per diem, . . . . .		1,500	0	0
60 horses employed during the year at £25 each, per annum, for forage &c. . . . .		1,500	0	0
6 extra horses at £25 per annm. each, for forage, &c., . . . . .		150	0	0
60 drivers employed during the year a 5s. per day each, . . . . .		4,500	0	0
10 extra drivers employed as grooms a 5s. per day each, . . . . .		912	0	0
15 per ct. interest on £3,000, capital appropriated for purchase of horses, carts, sleighs, harness, &c. . . . .		450	0	0
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Total cost for cutting 60,000 cds.,	£	18,837	0	0
Add cost of 40,000 cords obtained by contract at 8s. pr. cord, }		16,000	0	0
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Total cost for 100,000 cords,	£	34,837	0	0
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*Carters, Conveyance, &c.*

There is no doubt but that under a proper system of cartage, fuel could be delivered to the purchaser at a low rate; and a great convenience afforded from such an arrangement. It could also be made a source of profit to the Company.

The proposed mode for carrying out this system, will be found under the head of Bye-Laws; but the following estimate will show that a great saving can be effected to the public, as 80 carters, with good horses, engaged all the year, could deliver 320 cords a day,—mean distance from Depot  $\frac{3}{4}$  mile.

80 horses at £25 per ann. for forage &c.	} £. 2000 0 0
80 carters a 5s. per diem each, per annum,	} 6000 0 0
5 extra horses at £25 per ann. for forage &c.	} 125 0 0
10 grooms a 5s. per diem each, per annum,	} 912 0 0
15 per cent on £4000, capital appropriated for purchase of horses, carts, sleighs, &c.	} 600 0 0
	<hr/>
	£ 9,637 0 0

Cartage of 100,000 cords of wood at 2s. 6d. per cord,	} £ 12,500 0 0
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leaving a profit, on a very high estimate, of £2,863. And here it may be remarked that the fields in the neighbourhood of the Depot are well suited for meadow land, which, when manured from the stables of the Company, would produce large crops of hay for the establishment.



*Black Birch.*

That the forest north of Quebec, abounds in fine black birch is a well known fact: the difficulty of transporting this heavy, but valuable timber, has heretofore been the cause of its high price, and a bar to a more extensive trade in that wood; could a certain supply always be depended upon at a fair price, the demand no doubt would be greater.

The average quantity annually exported from Quebec, Parliamentary Statistics shew to be about 5000 tons, but a much greater quantity is of course used in local consumption; the country around Quebec is the only place in Canada from whence this wood is obtained for exportation, and were the means of conveyance better, a larger supply and a far superior quality would be furnished. The profit of conveyance for 5000 tons of this timber might be set down at £1,200.

*Shiptimber, Lumber and Building Materials.*

The Lumber that will pass along the railway will not only be considerable, but various, consisting of pine, spruce logs, elm, basswood, ash, tamarac,—besides sleepers, scantling, deals, boards, handspikes, treenails, spars, masts, tanners bark, lathwood, shingles, &c.

Excellent quarries of building stone are known to exist in the locality of the line, and limestone is to be found in abundance near Lorette; there can be no doubt but that these materials, of the first importance in building, can be conveyed to Quebec at one half the price it has hitherto cost to obtain them from Cap Rouge or Beauport. A revenue of at least £3000 might safely be calculated upon being received from the conveyance of shiptimber, lumber, and building materials; which, on the aggregate, would amount to upwards of 12,000 tons.

*Produce of Lands.*

Enquiries from farmers possessing land in the vicinity of Valcartier, with from 80 to 100 acres under cultivation, shew, that they annually send to the Quebec Market, about

300 bushels of Potatoes,  
300 bushels of Oats,  
500 bundles of Hay, and  
2 cwt. of butter,

besides horses, horned cattle, pigs, poultry, &c. A farmer seldom brings into Quebec, (from any point between St. Catherine and Valcartier, distance, 18 miles from the city,) more than 12 or 15 bushels of potatoes, if he intends returning the same day; were he to put a value upon his time in winter, and that of his horse, and calculate on the injury to his sleigh and harness, and the attendant expenses of a journey to town, he would soon find that he loses considerably; that the time thus lost (at least 2 days in the week) he could profitably employ in furnishing the Railway with wood, and all his produce he would send by rail.

Supposing then that he will do so, and that the cost for conveyance is as follows:

300 bushels of potatoes at 3d. per bus.	£	3	15	0
300 bushels of Oats, at 3d.		3	15	0
5 tons of Hay, at 5s. per ton,		1	5	0
Horned Cattle,		0	10	0
Butter, Vegetables, &c.		1	0	0
	£	10	5	0

Here then might be derived a revenue of £10 5 0 from every extensive farmer along the River Jacques Cartier and the settlements of Valcartier: there are at least in these settlements 200 farmers who would furnish the above, thus giving a revenue of about £2000 for the conveyance of produce, without making any calculation for the Groceries, Flour, Raiment, &c. required by these settlers from the City.

### *Passengers.*

Although not intended as a Passenger line, it is highly probable that a considerable number of people will daily pass over it. The means of rapid communication will induce many to visit the beautiful scenery in the neighbourhood of Jacques Cartier and the River St. Ann on fishing and pleasure excursions : there is no doubt but that country will, ere long, be studded over with country residences.

When it is considered what a number of persons visit Lorette, under whose heights the railway will run, and the number of people residing in the Jacques Cartier and Valcartier settlements, constantly requiring to visit Quebec on private affairs, and when the facilities of a railroad will induce so many to reside beyond Lorette ; 40 passengers a day, going and returning along the whole line, might safely be calculated on. Set the average price at 1s. per head, then the revenue for passengers will amount to £730.

### *Steam Saw Mill at the Depot.*

The cost of a powerful Steam Mill, with all the machinery complete, will not exceed £4000 ; by which logs may be sawn up, planks tongued and grooved for flooring, and doors, window sashes, shingles, laths, &c., made. A Mill of this description will not only be a local benefit, but realize also a handsome profit to the Company.

The following is an estimate of the working expenses, with the sources of profit to be derived from the Mill.

Interest on £4000 the cost of the Mill,	
allowing 15 per cent, to cover	
wear and tear, . . . . .	£ 600 0 0
15 Men, 300 days, each at 6s. . . . .	1350 0 0
10 Boys, 300 days, each at 2s. . . . .	300 0 0
20 Men employed 300 days, each, at 5s.	
in sawing firewood, . . . . .	1500 0 0
10 Boys employed 300 days each, in	
piling and clearing the wood from	
the saws at 2s. . . . .	300 0 0
Felling in the forest, and conveyance of	
10,000 logs, 12 ft. long,—1500 Cords	
of wood at 7s. 6d. per 96 cub. ft. . . . .	562 0 0
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Annual Expenses, . . . . .	£ 4612 0 0
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No fuel calculated for the Engine as the slabs and edgings will give an ample supply.

*Sources of Profit.*

75,000 cords of fire wood, sawn & split	
at 1s. 6d. per cord . . . . .	£ 5625 0 0
10,000 spruce and pine logs, cut into 3	
inch planks, would give 50,000	
planks, worth on an average £50	
per M. . . . .	2500 0 0
Other profits from making doors, window	
sashes, tonguing and grooving	
planks, &c. . . . .	500 0 0
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	£ 8625 0 0
Deduct working expenses, . . . . .	£ 4612 0 0
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Leaving a profit (provided the logs	
were cut from the Company's	
lands,) of . . . . .	£ 4013 0 0

# *Synopsis of the Annual Receipts and Expenses of the Railway.*

RECEIPTS.		EXPENSES.		
£	s. d.	£	s. d.	
100,000, cords of firewood at 15s. p. cd.	75,000 0 0	Cost of 100,000 cords of wood, as before detailed,	84,837 0 0	
Profit on conveyance of this wood to purchasers' residences,	2,863 0 0			
Profit on conveyance of 5,000 tons of Black-birch,	1,200 0 0	Cost of conveyance of above to Quebec, including passengers and produce, being 45 per cent. on assumed profits,	19,302 0 0	
Profit on conveyance of 5,000 tons of ship timber (half the consumption) beside large quantities of planks, pine and spruce logs, elm, ash, tamarac, spars, bark, &c., and some thousand tons of building stone and lime,	3,000 0 0			
Profit on conveyance of produce,	2,000 0 0	Interest on £50,000, assumed as money borrowed,	3,000 0 0	
Profit on conveyance of Passengers,	730 0 0			
Annual sale of Company's lands,	250 0 0	Add 10 per ct. for contingencies,	57,139 0 0	
			5,714 0 0	
Total receipts,	£ 85,043 0 0	Total expenses	£ 62,853 0 0	
		Total Annual Receipts,	£85,043 0 0	
		Total Annual Expenses,	£62,853 0 0	
		Net Profit,	£22,190 0 0	

NOTE.—The assumed profits of the Saw Mill, are not included in this Return.

And allowing out of this a dividend of 10 per cent to the shareholders, upwards of £12,000 would remain for continuing the railway, &c.

In estimating for these profits, it must be understood, that they are not considered to arise altogether from the first part of the line, viz: between Quebec and Jacques Cartier; but a portion of them will be obtained when the Railway is extended to the valuable forests beyond that River. It was perhaps unnecessary for me to have given any estimate, as the one to be furnished by Mr. Fosdick will be based upon strict statistical information and on sound experience; however, it will be satisfactory to me, should these figures approach to his. It should be, however, distinctly borne in mind, that no matter what quantity of wood may be expected from other sources, no competition can exist with this company under its proposed organized system; the object of which is, to allow every citizen to participate in its benefits, and who, as shareholders, must, for their own interests, support the Railway; and even were 3 feet wood hereafter to be offered at the market for 15s a cord, it is quite evident that, independant of the shareholders being interested in the undertaking, a preference would always be given to a Company established for supplying fuel, sawn, and carted to the purchasers' residences, when the buyer would be relieved from all trouble beyond the mere payment for the wood at the Treasurer's office; nor will he be necessitated to expend at once, some £30 to enable him to take advantage of the market, when at all seasons of the year he could obtain any quantity (not less than a cord) at one uniform price: it requires but slight reflection to feel, that from no other source can fuel for this City be obtained at so low a rate.

If these then are likely to form such a revenue from the road at its first commencement, what may not be expected from it in the course of a few years? why the whole aspect of the country will become changed; for wherever a railroad passes through a new country, its facilities for conveyance becomes a stimulant towards the discovery of its resources, and much may be discovered of value to the country at present hidden.

The fine water powers of Lorette, Jacques Cartier and the mountain streams around, will soon have manufactories established thereon, from which, also, much may be expected.

Few in Quebec, I believe, are aware of the description of country North West of this City: it is a prevailing opinion that it is rough, stony and mountainous; this is an erroneous idea, the flat table land behind Lorette, and the general height of all the valleys along the whole line of the proposed route, is but a little over that between Quebec and St. Foy; having the advantage, however, of being well sheltered from easterly winds and possessing a far superior soil;—the severest gale of wind that has been felt in Quebec, this season, was entirely unfelt 20 miles hence; and at a season of the year when vegetation was retarded here, good meadow grass was pulled by Mr. Bignell, when I accompanied him on his second exploration early in June, 15 inches long, and that on the slope of a hill at least 300 feet above the River Jacques Cartier. The settlers affirm that the frost now but rarely affects their crops, and as the land becomes more cleared the climate improves.

Between the place where the Railway issues from the pass behind Lorette and the Jacques Cartier, there is an extensive plain, bounded on the north by Hartz or Round Mountain, and on the south by the mountain of Bonhomme; this plain contains about

60 square miles or 38,400 superficial acres; the soil is composed of sand and clay, the whole of it fit for cultivation, and such of it as is at present under crop, bears evidence on its surface that the soil is not unfruitful. In fact, it is peculiarly suited for new settlers; being light, it enables him to cultivate a much greater extent of land than he possibly could do on heavy and stony ground, in a country where labor is not to be obtained. The mountains of Bonhomme and Hartz, are clothed with the finest hardwood, and a ten year's supply of fuel could easily be obtained from these hills without ever crossing the Jacques Cartier.

To form an idea of the effect that the Railway will have in inducing people to settle in that district, imagine the number of persons who have heretofore been employed in various portions of the country in supplying Quebec with fuel concentrated on one plain, feeling certain of a livelihood there, and establishing good farms for their children; this, in itself, in a small lapse of time will form an extensive traffic for the road.

So accustomed are the inhabitants of Canada East to extensive valleys and flat land, that the undulating portions (with the exception of the Eastern Townships,) have been much neglected, when in fact some of the most fertile land lies in valleys, well sheltered by neighbouring hills.

In the wildest and most mountainous parts of the highlands of Scotland, the people were at one time, so poor, and the country so thinly inhabited, as to be totally unable to keep in repair either their roads or bridges. After Surveys and Reports, Parliament determined to defray one half of the expense of constructing roads and bridges for the purpose of facilitating commercial communication. The inhabitants of these remote regions obtained permission to tax themselves to pay for the loans obtained for the



liquidation of the other half of the expense, and in two years, these improvements had extended over 500 square miles, and this country is now one of the most flourishing parts of Scotland.

There are other points, in connection with the management of this Railroad, which would be attended with great advantage if carried into effect; but as the intention is that the road shall be yearly extended in proportion as the funds of the Company will permit, and its wants require, it is unnecessary to lengthen this Report by entering upon the subject, as time and experience will prove the necessity of it or otherwise. The proposed Organization, Rules and Bye-Laws submitted, I feel are very imperfect, as in a new undertaking of this description, experience alone can point out the best system for carrying out a project, which, however favored it may be by circumstances in its commencement, must, ultimately, under a bad working system, or even under a good working system badly conducted, prove a failure ; but, if properly carried out, become a boon to the City.

The whole nevertheless respectfully submitted,

F. N. BOXER,

Secretary.



# RULES AND REGULATIONS.

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**The intents and purposes for which this Company is proposed to be established having been stated in the foregoing Report, are now succinctly recapitulated.**

**VIZ :—**

For the construction of a Railway, <sup>Preamble.</sup> which, passing through the forest will cross the River Jacques Cartier and St. Ann, in a direction bearing North Westerly from Quebec, with the hope at some future day, of being able to continue the same to Lake St. John, in the District of the Saguenay. Its primary object however, is to unite the citizens into an Association for supplying the City with cheap firewood, shipbuilders with timber suitable for the construction of vessels, and contractors with building materials; also, for the encouragement of manufactories, saw mills, &c., on the numerous water-powers on the route, and, for the promotion of agriculture and the settlement of a vast extent of valuable country.

1st. That the affairs of the Company, <sup>Company to be under the control of 7 Directors of whom 3 shall form a quorum</sup> shall be under the control and management of a Board of seven Directors (of whom three shall be a quorum) and who shall choose among themselves a President and Vice-President.

Election of Directors to be by ballot; 6 shares necessary to qualify a Director.

2nd. That the election of Directors shall be by ballot, and at such election members shall be entitled to votes in proportion to the number of shares they hold, but no shareholder shall be qualified to be a Director, unless he holds 6 or more shares in the Company.

In absence of President and Vice-President, Directors present to appoint a chairman *pro tem*.

3rd. In the absence of both President and Vice-President, the Directors present at any meeting of the Board, shall have power to appoint a chairman, *pro tem*. and with such chairman, shall be competent to transact the business of the Company.

Manager to be appointed who will also perform the duties of Secretary.

4th. That a Manager shall be appointed who will also perform the duties of Secretary, and to whom, in order to carry out the views of the Company, the whole control, management and supervision of their affairs shall be entrusted.

Two Directors to be appointed annually with whom the manager will consult, with power to call special meetings of the Board.

5th. That two of the Directors shall be appointed, yearly, with whom the Manager will consult on any affairs of moment whenever it may be deemed necessary; with power, if considered requisite, to call together a Special Meeting of the Board.

Directors to meet quarterly to receive Report of Manager.

6th. That the Directors shall meet quarterly, i. e., commencing on the 3rd. of Jany. and on the 3rd. day of the month of every succeeding quarter, when a full Report of the prospect and state of the

Company's affairs, will be laid by the Manager before them.

7th. That when in full operation, upwards of £150,000 will annually pass through the hands of a Treasurer, that a competent person be appointed, to whom will be entrusted the keeping of the accounts, and who will receive and pay all monies for and on behalf of the Company, and his receipt shall be a sufficient discharge. Treasurer to be appointed who will keep the Books.

8th. That the Treasurer shall give good and ample security to the satisfaction of the Board of Directors, and he shall deposit daily with the Bank all such moneys as he shall receive. Treasurer to give security, and deposit daily in the Bank all moneys received.

9th. That no money shall be drawn from the Bank without an order from the Manager (or in his absence by any one of the Directors named for that purpose) and countersigned by the President, or in his absence, by the Vice-President or Chairman. No money to be drawn from the Bank without an order from the Manager countersigned by the President, &c.

10th. That Books shall be opened for keeping the accounts, minutes and other documents of the Company; and duplicate copies of all deeds, plans and important papers shall be made, and deposited in . . . . . Regular books to be opened, and duplicate copies of deeds plans, &c., to be made.

11th. That the proceedings of the Company shall be entered in a minute Book in detail, and signed by the President, Vice-President or Chairman as well as by the Secretary. Minutes of Board to be signed by President and Secretary.

Pay lists  
&c., to be fur-  
nished month-  
ly by Treasu-  
rer, &c.

12th. That the Pay Lists and other Vouchers shall be prepared by the Treasurer and submitted on the 26th of every month for the approval of the Manager, whose signature of approval shall be authority for payment; and that a statement on the 1st of every month shall be prepared by the Treasurer, shewing approximately the amount required for the following month's disbursements, and the amount of money lying in the Bank to the credit of the Company.

Officers ap-  
pointments to  
be permanent,  
unless guilty  
of misdemea-  
nors.

13th. That all officers of the Board shall be considered permanent, and shall not be dismissed unless guilty of a breach of faith, incapacity, or misdemeanor; and then, not until his conduct has been fully investigated into before a Committee of Directors named for that purpose, of whom, the Manager shall at all times form one; and in the event of it being necessary to discharge such officer, due notice of the Board's intention shall be given him, unless the circumstances warrant instant dismissal.

Shareholders  
may transfer  
their shares.

14th. That any shareholder may transfer his share or shares by causing an entry of such transfer to be made in the books of the Society, in such manner as the Directors may appoint, upon payment of the sum of 2s. 6d. for each share so transferred and of all arrears then due; and thereupon the transferee, (after signing the rules) shall be entitled to all the privileges of the original shareholder.

15th. That in case of the death of any member, the legatée or legal representative of such deceased member, shall, before becoming entitled to the privileges of an original shareholder, procure his place of abode, and the particulars of his title, to be registered in the books of the Society, and shall at the same time exhibit the will or probate thereof, or grant of letters of administration (as the case may be,) for the inspection and satisfaction of the Directors, and pay for such registry the sum of 2s. 6d. per share.

A Member dying, mode of proceeding for a legatee or legal representative to become a Shareholder.

16th. That the Directors elected at the formation of the Company, as well as those hereafter to be elected, shall be indemnified out of the funds of the Company or otherwise, from all expenses in reference to the formation, conduct, and management of the Railway.

Directors not to be liable for responsibilities of the Society.

17th. That, in order to distribute the benefits of this Company generally among the citizens; persons burning less than 10 cords of firewood annually, will be allowed to take a share in co-partnership with any other person whose consumption of fuel is less than 10 cords, both signing in the stock-book.

Persons burning less than 10 cords.

18th. That each member changing his residence shall, within one calender month thereafter, give notice in writing to the Treasurer of such change, and of his new place of abode and address, or in default thereof be fined 2s. 6d.

Change of residence to be notified to the Treasurer.

Manager to  
engage labour-  
ers, &c.

19th. That no officer of the Company, except the Manager, shall have power to engage any mechanics and labourers for the works, or have power to dismiss any for insubordinate conduct.

Division of  
working par-  
ties into gangs  
&c.

20th. That the parties employed in the bush shall be divided into gangs of ten; every tenth man will be chosen as a working foreman, and receive extra pay for the same, and be answerable for the conduct of the party under his charge.

One foreman  
over every 50  
men, &c.

21st. That over every 50 men will be placed a foreman, whose duty will be to superintend his party, and to whom will be entrusted the payment of their wages, and he will prepare the pay list of his party on printed forms for that purpose, and be answerable for the correctness of the same; the pay list to be delivered to the Treasurer two days previous to payment.

Workmen to  
be paid every  
fortnight.

22nd. That payment shall be made to the men every second Tuesday, their accounts being made up to, and furnished by the foremen, every Saturday evening previous.

Promotion  
to depend on  
sobriety &c.

23rd. That all promotion among the men will depend entirely on sobriety, activity, general intelligence, and marked good behaviour.



## CONTRACTS FOR WOOD.

24th. That no Contractor shall be allowed to contract for more than 5000 cords of wood, and shall give security for the delivery of the fuel within the period specified by his contract, under a penalty of £2 per diem for every day he shall fail to deliver the wood after the stipulated time.

No contractor to be allowed to contract for more than 5,000 cords; failing in contracts, &c.

25th. That the wood shall be delivered in any lengths the Company may require and the contractor shall pile at his own cost the wood at such places along the line as stipulated in his contract; and should at any time, the Company's foremen, be of opinion that the wood has not been properly piled, the contractor shall repile the wood at his own cost; and failing to do so within 3 days after receiving due notice in writing from the Manager, the wood shall be re-piled by the Company's men, and if found short in measure, the cost of the labor of re-piling shall be deducted from such monies as may be due to the contractor, and he shall forfeit the sum of five pounds for false measurement.

Contractors to pile the wood at the rails; penalty in failing &c.

26th. In all cases of dispute, whether with the contractors or with their men, or the Company's men, the same shall be immediately reported to the Manager by the officer in charge.

Cases of dispute to be reported to manager.

## RULES FOR CARTERS.

27th. That the Company shall employ a sufficient number of carters for the con-

Company to have their own carters.

veyance of the wood to the residences of the purchasers, and who shall be subject to the following rules.

Carters to  
wear a badge.

28th. Each carter shall wear a badge on his left arm with his number.

Carters to be  
supplied with  
a book &c.

29th. That every carter shall be furnished with a book, in which will be entered by the Issuer the quantity of wood he has to deliver at any one place, and he will obtain the signature of the party receiving the wood, which will be a full acknowledgement of its delivery. That he shall every Saturday evening, present his book to the Issuer for examination.

Issuer to re-  
port to mana-  
ger any com-  
plaints against  
carters.

30th. That the Issuer will immediately report to the Manager any complaints made by purchasers against the carters.

Carters re-  
ceiving wood  
to sign receipt  
for same.

31st. That parties receiving wood will sign for the faithful delivery of the same in the carter's book; and if short of measure will state the same therein, in order that immediate inquiry may be instituted; also, to mention therein any complaints they may have to make.

Company's  
carts to be  
painted red,  
&c.

32nd. That the Company shall possess a sufficient number of carts painted red, properly numbered, and the quantity of wood they can contain registered thereon.

Workmen  
to give a re-  
ceipt for tools.

33rd. That the Company's workmen shall sign a receipt for all tools, implements, &c, intrusted to them for the execution of their work.

## Regulations of the Wood-Yard, and Rules for the purchase and delivery of Fire-Wood.

34th. That the purchase of Fire-wood shall be strictly a cash transaction. Purchase of fire-wood, &c.

35th. That parties requiring wood will give their order and pay for the wood at the Treasurer's office, at least seven days before they require its delivery at their residences. Seven days notice to be given by parties requiring wood.

36th. That no person shall be allowed to purchase less than one cord at a time. Less than 1 cord not to be sold.

37th. That the Treasurer shall furnish the Issuer, regularly once a day, with the orders he has received for delivery of wood; and the Issuer will be responsible for the proper execution of those orders. Treasurer to furnish Issuer daily with orders for wood.

38th. That the wood shall be sold by cubical measure, each cord to contain 96 cubic feet, the price to be regulated by the expences of the Company. Wood to be sold by cubical measure of 96 cubic feet to the cord.

39th. That residences shall be erected at the Depôt for the Issuer, his Foreman and the requisite laborers, who shall reside therein. Issuer, foremen & laborers to have residences at the Depot.

40th. That the Wood-yard shall be open from 6 o'clock, A. M., to 6 o'clock, P. M., between the 1st April and 30th October; and from 7 A. M., to 5 P. M., between the 1st November and 31st March, every year. Hours when the wood-yard will be open.

41st. No smoking to be allowed within the Depôt. Smoking in Fuel-yard disallowed.

Water pipes  
to be laid  
down.

42nd. That water pipes shall be laid down, with proper hoses for the same; and placed under the particular charge of the Issuer.

Clock and  
Belfry.

43rd. That the Issuer be provided with a good clock; and that a belfry and bell be supplied for regulating the working hours.

Breakfast  
and Dinner  
hours.

44th. That one hour be allowed for breakfast and one hour for dinner, except during the winter period, when the laborers will breakfast before commencing their work.

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### STEAM SAW MILL.

It being considered that much benefit will be derived by the Company from the construction of a Saw Mill, and also a great convenience afforded to the Public; it is, therefore, proposed, so soon as the road is in operation, to erect a Steam Saw Mill, for the purpose of cutting up lumber into planks and boards, grooving and tonguing planks for floors and ship decks, making doors, window sashes, laths, shingles, &c., and also for sawing and splitting up firewood for the convenience of the purchaser.

Men at the  
Mill to be un-  
der same regu-  
lations as the  
others &c.

45th. That the men engaged in this Mill shall be under the same regulations with regard to discipline, as provided for those employed on any other portion of the Company's works.

Sawing tim-  
ber, how paid  
for.

46th. That in the sawing up of lumber, the men be paid according to the number of pieces or superficial feet of wood sawn per day.

47th. That whenever boys can be introduced and trained on the Works, they shall be employed, and will be particularly selected for promotion on account of long service and good conduct. Boys to be employed ac.

48th. That the Mill and all the Works be supplied with Gas from the City Gas Works. Mill to be lighted by gas.

49th. That water pipes shall be placed in convenient places in both stories of the Mill, fixed in frost proof cases, and supplied with hose pipes; so as to be ready at any moment to deluge the building in case of fire. Water pipes &c.

50th. That the disbursements and profits connected with the Mill establishment be kept by the Treasurer quite distinct from the sale of fire-wood. Accounts of the Mill to be kept separate.

51st. That all payments for purchase of lumber and for sawing be made through the Treasurer's office. Payment for lumber to be made through the Treasurer's Office.

### LOCOMOTIVE DEPARTMENT.

52nd That the usual Rules in force with regard to Management, Signals, &c., used on any of the principal lines in this country be adopted on this; with such deviations therefrom as the nature of the service may require. Signals, &c.

53rd. That the Drivers and all the employés in connection with this Department be under the immediate control of the Manager. Locomotive Department to be under the manager.

Company to  
have spare sets  
of cars.

54th. That the Company be provided with a sufficient number of Platform Cars, so that an engine arriving at the depôt, with a loaded train, can be immediately detached therefrom, and dispatched with a train of empty cars to the forest, where another loaded train will be in waiting to be attached to the Engine: thus, no detention will take place either at the terminus in town or at the depôt in the forest.

Passenger  
cars to be at-  
tached.

55th. That passenger cars be attached, stopping at such places as may hereafter be deemed advisable; and so soon as the traffic of the Company will warrant the expense, an Omnibus to be provided to convey the passengers from the terminus to the Upper Town.

56th. Tickets for conveyance will be obtained at the terminus. and the hours for starting at either terminus and the time for calling at intermediate stations will be regulated when the speed of traveling has been determined upon.

F. N. BOXER,  
Secretary.

# RK RAILWAYS.

2,500 to 2,700 Miles.

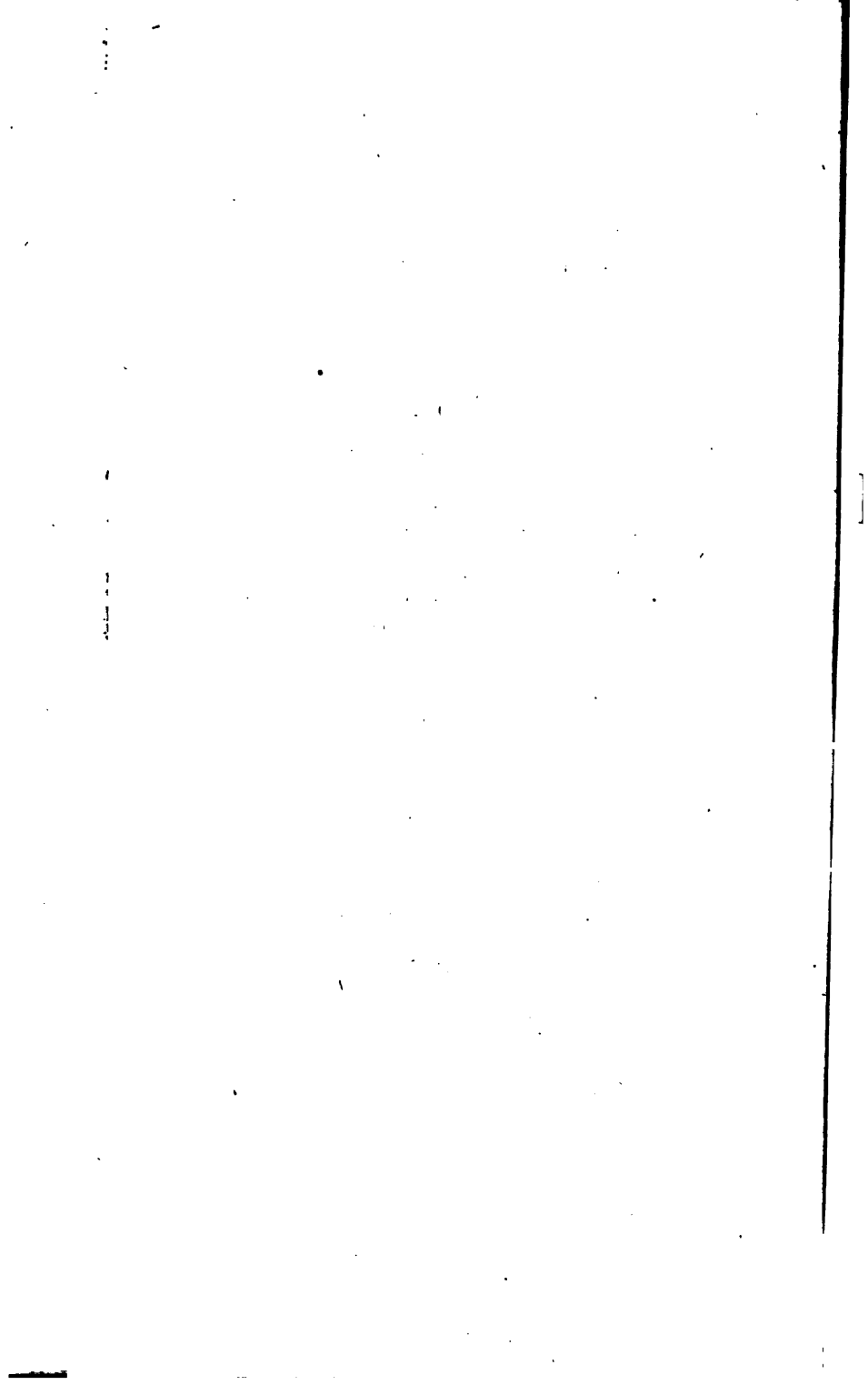
*mile run by Trains.*

1852.			1853.		
Pass.	Frt.	Avg.	Pass.	Frt.	Avg.
cents.	cents.	cents.	cents.	cents.	cents.
		14			18.72
16.98	16.53	16.75			18.32
		44			48.00
		75			85.00

oad, each mile run by Trains must earn ;  
 2—75 cents,  
 3—85 cents.

leaving profit per mile run, 73 cents.  
 “ “ 71 “

were 52½ per cent of receipts.





**REPORTS**  
**OF CHIEF ENGINEER**  
**ON THE**  
**SURVEY**  
**OF THE**  
**NORTH SHORE RAILWAY,**  
**AND OF**  
**DIRECTORS**  
**ON THE**  
**PROPER RESOURCES OF THE SAME.**



**QUEBEC:**  
**PRINTED BY AUGUSTIN CÔTÉ.**

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**1854.**



**TO THE DIRECTORS**  
**OF**  
**THE NORTH SHORE RAILWAY COMPANY.**

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**ENGINEERS OFFICE,**

**NORTH SHORE RAILWAY,**

**QUEBEC, 20th December, 1853.**

*Gentlemen,*—In compliance with instructions transmitted from you by Hector L. Langevin, Esquire, Secretary of your Company, in July last, I immediately organized three efficient exploring parties: the first commencing at Quebec, running West; the second and third at Pointe du Lac, one running towards Montreal, the other towards Quebec to meet the first party.

From Quebec, the line that has been surveyed starts from the Terminus grounds that you have purchased at the junction of the St. Charles and St. Lawrence Rivers—at the head of St. Peter's street, Lower Town, close to the East India Dock, and in rear of the Bank of Montreal; continues along the south bank of the St. Charles river, and runs through St. Joseph Street (St. Rochs), then pursues a westerly course, direct through the valley of the St. Charles, between the Ste. Foye hills, and the hills of Ancienne Lorette, to the point marked B, on plan.

Another line has been surveyed from A, on plan, near Munn's Warf, crossing the St. Charles, near that place—and curving round by Mr. Parke's ship yard, where it takes a generally straight direction, recrosses the St. Charles at Mr. Duchesnay's, and joins the first line at B.—This deviation has been brought before your notice, should the route through St. Rochs be abandoned; the difference of cost and distance of one line over the other is appended.

To avoid the higher grounds on the south side of the Cap-Rouge River, and to join the valley on the north, along which the line continues its course, two curves are necessary, one of about  $\frac{1}{4}$  a mile radius, the other of 11,460 ft. or nearly two miles, and two bridges. At each crossing of the last named river, the spans are so small, not exceeding in either case 40 feet, that their cost need not be considered, in comparison to that of bringing the Railway over the high grounds, which it is the object of this *détour* to avoid.

Following the valley on the north of this river, the line traverses its highest point rising gradually on the face of the Jacques Cartier hills (which are a continuation or spur of the Lorette Mountains, terminating at the St. Lawrence, near Pointe-aux-Trembles), and reaches their summit level (375 feet above low water at Quebec) at about one mile west of « Paradis' Mills. »

As regards cost of construction, the last two and a half miles may be considered as of the greatest importance on this division.

Running, at this point, in a direction almost north and south, elevated considerably, even at this their lowest point, above the level of the surrounding country, these hills offer an obstacle which will require a greater amount of labor to remove, than appears to present itself on any other part of the line. This point or « pass, » I am persuaded from a careful personal examination of the range, is the *best* that can be found.

At it, a passage can be effected, with a gradient of 50, if not 46, feet to the mile, and a curve of  $1\frac{1}{4}$  miles radius. The above inclination, I am disposed to think, may be further diminished in the location of your line, and the cost of the work reduced.

While on this subject, I may remark that there is but one other « pass » by which a passage over these hills could be effected ; I allude to that known as « Doyles » about two miles more to the north. This summit is not to be approached by the route described above. To render it available, the course of the line of Railway would have to be brought close under Charlesbourg and Indian Lorette, and over the heights north of the Church of Ancienne Lorette.

With a view to ascertain the comparative merits of these two routes, Mr. Grubb was employed several days in running lines and levels in various directions endeavouring (but without success) to carry your road over these hills. No place could be found where your road could have a gradient of less than 50 feet in the mile, and this obtainable only at great cost.

In addition, I observed that the face of the country, along which the line should be carried, involved a detour extremely rugged, and as all cuttings required on the route for a distance of about six miles would most probably be in *rock*, I was led to the conviction that in point of economy both in the present outlay and future working of the line, the route by the Cap-Rouge River is preferable.

Continuing on from the summit level above alluded to, your road pursues a direct course in almost a westerly direction to the Jacques-Cartier River. Between these points, the works required will be of a very ordinary character.

The crossing of that river will require a bridge of three spans, the centre of which will be 100 feet and the two side spans 80 feet each ; the height will be about 80 feet, but owing to the extraordinary facility which this locality offers of procuring the best materials (stone, etc.,) almost from the very site of the bridge itself, the cost of this structure will be comparatively small.

The site for this bridge is in the immediate vicinity of the present or « Black Bridge, » as it is called. No advantage can be derived from crossing more to the north of this ; for, independent of the line being thereby some what lengthened, the River itself becomes wider and would require a larger bridge.

Southward there are but two points which *might* be made available. In both cases, the stream is generally confined to a narrow channel worn in the bed of the rock, but the banks are much *elevated* above the level of the water, and slope back with a considerable batter, leaving a chasm at the top to be spanned of not less than 500 feet in *either case*. In addition, the approaches to the river from the eastward would be over broken and rugged ground, while the country generally westward, as far as

Portneuf, would be far less favourable than that from the site selected.

Between this and Portneuf, the most direct is in other respects the *best* route.

The works on this section may be considered below the average with the exception perhaps of the excavation and embankment, which are necessary to carry your road over the ridge of sand extending along the western bank of the Jacques-Cartier River.

The next point worthy of remark is the crossing of the Portneuf River and valley. The nature of the surrounding country leaves us but little room for embarrassment in the selection of the site for this bridge.

The frequent occurrence of deep and wide ravines, exceeding in extent, in many instances the span of the valley of the river itself, forbids the adoption of any line more to the north, while the increasing width and depth of the valley, together with the rough and broken nature of the ground, are equally unfavourable to any line more to the south, or closer to the village and manufactories of Portneuf.

The best (and practically I may add) the only site is that which has been selected; it is situated about half a mile above the Paper Mills of Messrs. McDonald and Logan.

The bridge here will be about 450 feet in length divided into 3 spans, 150 feet each; the height above the bed of the river is about 98 feet. Stone for the piers and abutments may be procured in the immediate neighbourhood.

The line from this onwards takes a south-west direction, curving to the left round the rocky and hardwood range of hills in rear of the village of Deschambault, thence assumes a generally direct course over a level and easy country to Sainte-Anne, at which village it crosses the river about 2200 feet above the present bridge, where the river is about 600 feet wide, and at an average 5 feet deep. From Ste. Anne, the direction of the line is straight, over a level country, involving the lightest and cheapest quality of work, to Batiscan, where it crosses the river about 800 feet above the present bridge; the river is 650 feet wide, and 5 feet deep.

The general direction of the road from Batiscan to Three Rivers is along the base of the first *Côteau* or sand ridge, two or three miles north of the St. Lawrence, keeping its course along the flat country between Champlain and the broken country inland; this course is the *shortest* and the work of the lightest quality. At Three Rivers the line crosses the St. Maurice about 1000 feet above the present bridge, At this place the river is divided into two Channels by an Island, 900 feet wide, cultivated and inhabited; the aggregate breadth of the water ways is about 1600 feet, the average depth of the river about 8 feet.

Here the direction of the line is slightly altered, curving to the left, towards the town of Three Rivers to avoid a *Côteau* or ridge of sand which runs parallel to the course of the river. Along the foot of this ridge the line now takes its course, rising gradually and attaining the general level of the country at the summit of the *côteau* at Pointe-du-Lac, about 8 miles further on. From Pointe-du-Lac, the line, which is about half a mile north of the Church, takes nearly a westerly course for  $2\frac{3}{4}$  miles, where a curve is necessary of about 2 miles radius for a distance of 35 chains. Here we get a tangent or straight line for a distance of  $15\frac{1}{4}$  miles to about  $1\frac{1}{4}$  mile beyond Maskinongé; passing south of Yamachiche, crossing Rivière du Loup  $\frac{1}{4}$  mile to the south of St. Antoine de la Rivière-du-Loup, and the Maskinongé 600 feet south of the existing bridge; the line then assumes a curve with a radius of 5,730 feet, and then continues in a straight course for a distance of 6 miles to a point 5 miles east of Berthier, and passing  $\frac{1}{4}$  mile south of St. Barthélemi.

Up to this point, a distance of 33 miles from Pointe-du-Lac, only 3 curves are necessary of easy radii.

A straight line could be had to this, but it would pass through the low lands subject to be inundated occasionally by the waters of Lake St. Peter, and would be inconveniently remote from the towns or villages of Yamachiche, Rivière-du-Loup, Maskinongé and St. Barthélemi.

From this last mentioned place, two routes present themselves, one keeping about 3 miles to the *north* of Berthier, and

continuing along the Côteau to L'Assomption, leaving to the south a large « *Sauvage* » in rear of Lanoraie; the other close to Berthier and continuing on behind the villages on the St. Lawrence to Bout de l'Isle. I chose the latter line as presenting fewer obstructions.

In the neighbourhood of Berthier, the country is subject to periodical inundations. In the spring, the waters of the St. Lawrence rising above their ordinary level, owing to the *shoving* of the ice at some shallow part of the river below, dams back the river Berthier and small streams below the village. These, having but little fall, overflow their banks and extend themselves for some distance over the country. There is however a strip of land running parallel with the St. Lawrence which is elevated above the level of these floods. On this strip the town of Berthier is built, and on it the line of Railway is also laid out, passing about 600 feet to the north of the Church and continuing onwards in a straight course, to about a mile beyond the crossing of the small river St. Joseph.

The length of this tangent is about  $9\frac{1}{4}$  miles. Near this point the line meets the first Côteau, and with a curve of over a mile radius for a distance of 40 chains, strikes on a straight course a tangent to Bout de l'Isle, a distance of  $23\frac{1}{4}$  miles.

This tangent passes immediately south of the Lanoraie *Sauvage*, crosses the Industry and St. Lawrence R. R. on its level, at about one mile north of the St. Lawrence, passes about  $1\frac{1}{2}$  miles north of Lavallrie and a mile north of St. Sulpice, leaving L'Assomption on the north and Repentigny to the south.

At Bout-de-l'Isle, several days were spent examining the river, and taking observations for the purpose of ascertaining the best crossing. After some consideration, I arrived at the conclusion that the best place for traversing the River-Des-Prairies, would be by passing over from the main land, diagonally across the islands of Bourdon, Ronde, and Bourgis; the length of bridging by this means would be reduced to 1200 feet. This will probably be further reduced on the location by a more extended examination, and which I would suggest should be carried out the ensuing winter.



From the appearance of the shores, I am led to believe that a rock foundation will be had here, below the bed of the river ; excellent limestone can be procured in the vicinity in large blocks, and all other materials necessary can be transported to the site by water.

The line beyond this place curves round with a radius of 2865 feet, for a distance of 2400 feet, whence it proceeds in a straight line for a distance of  $3\frac{1}{2}$  miles, to a place about a mile north of Pointe-aux-Trembles, then curves for a distance of 23 chains, with a radius of 11400 feet ; from here the line takes a direct course to Montreal, for a distance of  $7\frac{1}{2}$  miles, crossing the Municipal boundary or City limits about 500 feet in rear of the Toll Gate.

The continuation of the survey extended up Craig Street, to form a connection with the Lachine and Grand Trunk, etc., Railways, but as the exact sites of the station grounds of the Grand Trunk and Montreal and Bytown Railways are not yet determined on, I leave the question open as to the precise ground your station should occupy in Montreal.

An alternative line has been explored and surveyed by Mr. Macquisten across the Islands of Montreal and Jesus, via Terrebonne, and connecting with the last mentioned survey, near Lavaltrie.

Mr. Macquisten's Report on the relative merits of these two lines, with comparative estimates and tables showing the difference in distance and expense of one course over the other, will be found in the Appendix.

I have also furnished Tables showing the proportion of tangents to curves and the degrees of curvature, and the ratios of inclination. An inspection of these will shew that they are remarkably favourable to the diminution of the future working expenses of your Railway,

Of the total distance to be located from Terminus to Terminus (one hundred and fifty-six miles), one hundred and thirty-five, or eighty-six and a half per cent, are on straight lines ; the remainder, or  $13\frac{1}{2}$  per cent only, is composed of curves of very large radii. Forty-nine miles, or 31 per cent, are horizon-

tal, of the remaining 107 miles, 44 are under 6 feet per mile, while only twenty miles or 12.8 per cent are over 20 feet to the mile.

In the accompanying approximate estimate, I have provided for a line of single track with the usual allowance of three per cent for sidings.

The gauge to coincide with that of the Grand Trunk, Montreal and Bytown, and most of the other lines in Canada, viz., five feet six inches (5 ft. 6 in.) The track to be laid with a rail of 56 lbs. to the yard, and the works to be solid and substantial, but of a cheap and ordinary character. In contemplation of a second track being laid at some future period for which you may deem it advisable to provide at once in the case of all large bridges, I have prepared a table shewing the difference in their cost between a double and single track. This is table C in the Appendix. The abutments and piers of these bridges will be of stone, the superstructure of timber; all these materials may be found either on the spot or may be transported cheaply to their final destinations.

For all these works the estimate provides liberally. In establishing the prices on which it is founded, I have been guided by what has been actually paid for similar works on other lines taking little account of the singular advantages, which the average location of this line offers of reducing its cost below the average.

## APPROXIMATE ESTIMATE.

ESTIMATE OF FIRST DIVISION, EIGHTHY-THREE MILES.

*(Extending from Quebec to Pointe-du-Lac.)*

Clearing, (Acres) .....	260	a	60 $\frac{1}{2}$	780	0	0
Grubbing, (Rods) .....	6,963	a	2 $\frac{1}{2}$	696	6	0
Excavation Earth, (cub. yds.) .....	1,171,499	a	1 $\frac{1}{2}$	58,574	19	0
Do Rock .....	8,917	a	5 $\frac{1}{2}$	2,229	5	0
Do do .....	55,788	a	4 $\frac{1}{2}$	12,552	6	0
Do do .....	4,791	a	2 $\frac{1}{2}$	598	17	6
Earth excavation in foundations (cub. yds.) .....	10,030	a	1 $\frac{1}{2}$	750	0	0
Rock, do .....	279	a	5 $\frac{1}{2}$	69	15	0
Masonry, do .....	2,629	a	10 $\frac{1}{2}$	1,314	10	0
Do do .....	2,063	a	12 $\frac{1}{2}$	1,289	17	6
Do do .....	1,782	a	20 $\frac{1}{2}$	1,782	0	0
Do do .....	12,443	a	25 $\frac{1}{2}$	15,553	15	0
Bridge superstructure lineal feet .....	144	a	60 $\frac{1}{2}$	432	0	0
Do do .....	3,750	a	100 $\frac{1}{2}$	18,750	0	0
Coffer Damming, .....				3,000	0	0
Breast work, superficial feet, .....	6,000	a	4 $\frac{1}{2}$	1,200	0	0
Public Road crossings, .....	20	a	60 $\frac{1}{2}$	60	0	0
Farm crossings, .....				3,000	0	0
Land, (Acres) .....	1,080	a	200 $\frac{1}{2}$	10,800	0	0
Permanent way, (83 miles) .....				165,864	15	0
Engineering Supervision, etc. ....				4,000	0	0
						<u>£303,288 6 0</u>



Amount brought forward..... £543,696 2 2

### ESTIMATE FOR STATIONS, &c.

Principal station at Quebec, with workshop, machinery, &c.....		£20,000	0	0	
Do do Montreal		20,000	0	0	
Station at Three-Rivers....		10,000	0	0	
17 Intermediate stations....	a	£300	5,100	0	0
4 Turntables.....	a	250	1,000	0	0
Machinery of workshops...		3,000	0	0	
					£59,100 0 0

### ROLLING STOCK.

8 Locomotives.....	a	£2,200	£17,600	0	0	
8 Passengers Cars, 1st class	a	480	3,840	0	0	
8 Do do 2nd class	a	300	2,400	0	0	
100 Covered Platform Cars	a	170	17,000	0	0	
80 Platform Cars.....	a	150	12,000	0	0	
80 Ballast Waggon.....	a	75	6,000	0	0	
50 Hand Cars.....	a	27	1,350	0	0	
						£60,190 0 0
Sidings .....			£9,990	0	0	
						9,990 0 0
						£672,976 2 2
Contingencies, &c.,.....	12½ per cent.					84,122 0 3
Total amount.....						£757,098 2 5
Being at the rate, per mile, of.....						£4,853 3 10

I have the honor to be,

Gentlemen,

Your most obedient humble servant,

**JAMES N. GILDEA,**

Chief-Engineer,

N. S. R. C.

## APPENDIX A.

**TABLE SHEWING COMPARATIVE ESTIMATE OF THE TWO PROPOSED  
APPROACHES TO QUEBEC FROM CAP-ROUGE.**

### ESTIMATE OF NORTHERN ROUTE..

*(Length 44,100 feet.)*

		£	s.	d.
Excavations 123,500 cubic yards - - -	a 1½	6,175	0	0
Masonry in 3 bridges 4100 do - - -	a 25½	5,125	0	0
Do in culverts 300 do - - -	a 18½	270	0	0
Superstructure of bridge over St. Charles River at Quebec, 700 feet long -	a 150½	5,250	0	0
Superstructure of bridge over River Larue, 20 feet long - - -	a 40½	40	0	0
Superstructure of bridge over St. Charles River 75 feet long - - - - -	a 100½	375	0	0
		<u>£17,235</u>	<u>0</u>	<u>0</u>

### ESTIMATE OF SOUTHERN ROUTE.

*(Length 41,500 feet.)*

		£	s.	d.
Excavations, 51,000 yards - - - - -	a 1½	2,550	0	0
Masonry in culverts, 300 yards - - -	a 18½	270	0	0
Breast work for the embankment at « Palais Harbour, » 6,000 superfi- cial feet - - - - -	a 4½	1,200	0	0
Total, - - - - -		<u>£4,020</u>	<u>0</u>	<u>0</u>
Difference in favour of St. Joseph Street route - - - - -		<u>£13,215</u>	<u>0</u>	<u>0</u>

## APPENDIX B.

### TABLES OF CURVES AND GRADIENTS.

#### 1st. Division.

(FROM QUEBEC TO POINTE-DU-LAC.)

TABLE OF CURVES.		TABLE OF GRADIENTS.	
Radius.	Length in feet.	Inclination in feet per mile.	Length in feet.
17,190	4,100	Under 51	12,000
11,460	27,100	48	33,500
11,300	7,800	43	5,000
9,300	2,100	44	6,700
8,100	9,400	40	10,500
7,640	4,400	36	4,700
5,730	22,400	33	4,000
3,600	1,800	28	3,500
2,865	4,500	26	4,000
		25	2,200
In curve	83,600	23	12,300
In straight line,	355,920	22	10,000
		20	8,000
82.9 Miles.	439,520	19	26,500
		18	6,000
		15	6,800
		14	6,000
		12	10,000
		7	16,500
		5	56,100
		4	39,000
		3	39,900
		Level,	116,320
		82 9 Miles,	439,520

# TABLES OF CURVES AND GRADIENTS.

## 2nd. Division.

(FROM POINTE-DU-LAC TO MONTREAL.)

TABLE OF CURVES.		TABLE OF GRADIENTS.	
Radius.	Length in feet.	Inclination in feet per mile.	Length in feet.
11,460	21,250	Under 23	12,672
5,730	1,150	15	24,285
2,865	1,850	10	21,648
1,910	2,230	6	97,680
		3	47,520
		2	42,768
In curve,	26,480	Level,	138,864
In straight line,	358,960		
73 Miles.	385,440	73 Miles.	385,440

## APPENDIX C.

TABLE SHEWING THE COMPARATIVE COST OF THE PRINCIPAL BRIDGES  
WITH A SINGLE AND DOUBLE TRACK.

Name of Bridge.	Cost of single track.	Cost of double track.	Difference.
	£	£	£
Jacques-Cartier, - - - - -	2,895	4,434	1,539
Portneuf, - - - - -	5,854	8,254	2,400
Ste. Anne, - - - - -	5,000	8,680	3,680
Batiscan, - - - - -	4,568	8,254	3,686
St. Maurice, (N <sup>o</sup> 1) - - - -	6,951	11,712	4,761
St. Maurice, (N <sup>o</sup> 2) - - - -	8,546	14,458	5,912
Bout-de-l'Isle, - - - - -	20,120	30,000	9,880
	53,934	85,792	31,858



## APPENDIX.

### ASSISTANT ENGINEER'S REPORT ON THE TERREBONNE LINE.

You will perceive by the accompanying profile that the works are much heavier, the grades steeper and that more bridging is required by way of Terrebonne than by the shore line passing by Bout-de-l'Ile; in bridging alone there is a saving of five hundred and fifty feet (550) in passing by Bout-de-l'Ile, the crossing there being twelve hundred feet (1200), this with a bridge over Lavaltrie River of fifty (50) feet span is the only bridging required from Montreal to the Junction.

By way of Terrebonne to the Junction there are eighteen hundred and fifty (1850) feet of bridging required as follows : at Rivière-des-Praries nine hundred (900) feet, Rivière Jesus four hundred and fifty (450) feet, Rivière Mascouche one hundred and fifty (150) feet, L'Assomption River two hundred and fifty (250) feet, and Lavaltrie River fifty (50) feet.

Table of Curves from Montreal to Pointe-du-Lac, by Shore line.		Table of Curves from Montreal to Pointe-du-Lac, by Terrebonne line.	
Radius.	Length.	Radius.	Length.
11,460	2,300	11,460	6,400
2,865	1,850	5,730	4,400
1,910	1,130	1,910	1,820
5,730	1,150	5,730	1,400
1,910	1,100	2,865	2,200
11,460	4,000	1,910	1,800
11,460	6,300	11,460	1,700
11,460	5,250	11,460	3,650
11,460	3,400	11,460	4,000
	5 miles 80 feet.	11,460	6,300
		11,460	5,250
		11,460	3,400
			8 miles 80 feet.

TABLE OF GRADES BY SHORE LINE.

Under 23	feet	per	mile	-	-	-	-	-	-	2.4	Miles.
15	"	"	"	-	-	-	-	-	-	4.6	
10	"	"	"	-	-	-	-	-	-	4.1	
6	"	"	"	-	-	-	-	-	-	18.5	
3	"	"	"	-	-	-	-	-	-	9.0	
2	"	"	"	-	-	-	-	-	-	8.1	
Level,	-	-	-	-	-	-	-	-	-	26.3	
										<u>73.00</u>	

From the above tables, you will perceive that ninety-two and a half per cent of the division is straight, while nine tenths (9-10) of the balance is on curves of such radii as to offer no more resistance than a straight line, thirty-five per cent of the division is level, forty-nine per cent is nearly so being under six feet per mile, while the steepest gradient is twenty-three feet per mile and that only for a distance of two and four tenths miles.

I am,

Sir,

Your obedient servant,

P. MACQUISTEN,

Assistant Engineer.

James N. GILDEA, Esquire,

Chief-Engineer N. S. R. C.

# TO THE DIRECTORS

OF THE

## NORTH SHORE RAILWAY.

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### GENERAL VIEWS.

*(Translation.)*

The Committee appointed to examine the Report of the Chief Engineer on the Survey of your Road, have the honor to submit the following remarks :—

What hopes soever may have been entertained by the Company in relation to the Survey, have been far surpassed by the result, for it establishes the undoubted superiority of your Road over all the existing lines of Railway in the Country.

This superiority consists :

1st. In a shorter distance between two given points.

2ndly. In a more perfect level.

From these two primordial, and so to speak, elementary facts, the following may be deduced as corollaries.

1st. Of two roads, the rate of travel being the same, the shorter one is the sooner travelled over.

2dly. Of two roads the shorter one is the cheaper to travel over.

3dly. The cheaper to construct.

4thly. The cheaper to keep up ;

and of two roads, the more horizontal one, is

5thly. The sooner travelled over.

6thly. The cheaper to construct.

7thly. The cheaper to keep up.

8thly. The safer one.

These facts are trivial from their being so very elementary, but they do not the less prove that all competition with your Road is impossible as regards the traffic which reaches Quebec through Montreal, or carried on between both those Cities.

Your object is not to get up among the several Railways a jealousy and an antipathy which would prove prejudicial to the interests of the Country, inasmuch as each of these Roads has its own utility and its own object, and thus all are deserving of public encouragement.

Understanding as we did, the ideas entertained by you, we confined ourselves to the task of establishing, that if these undertakings are good, not only as regards the general prosperity, but also as regards that of the capitalist whose attention they have attracted and whose confidence they have secured, *a fortiori* that attention ought to be directed, and that confidence accorded to the « North Shore Railway,» which has not yet been constructed because the population of Quebec and of the North Shore of the river were in a state of lethargy, while all around them was excitement.

#### LENGTH OF THE RAILWAY.

The length of the line of the North Shore Railway is a little under 156 miles.

The distance between Montreal and Quebec, by the river, is 180 miles.

Mr. Engineer Bailey, in his Report to the Directors of the Richmond Railway, says, that the distance from Quebec to Montreal by that road, is a *trifle greater* than by the River.

The North Shore Railway, therefore, is at least 24 miles shorter than the Richmond and the St. Lawrence routes combined. This makes a considerable difference on that dis-

tance, and one which will affect by so much the cost of construction, the cost of keeping in repair and the cost of transport ; a difference which constitutes in every way a valuable economy both for the traveller and as regards the transport of freight. Add to this, that in order to travel from Quebec to Montreal *via* Richmond, the River must be crossed twice, thereby entailing considerable loss of time, especially in winter, and exposing the traveller to many dangers, while, by the North Shore, one can travel from Quebec to the very heart of Montreal without once leaving the cars, through a pleasant and fertile country and villages without number, within sight of the noble St. Lawrence, whose waters, covered with thousands of sails, will present to the traveller, both in stormy and in calm weather, a spectacle at the same time grand and harmless ; for, your Engineers, in carrying out your instructions, have approached the River at every point where they could conveniently do so, in order that your Road may be useful to the population of both Shores of the Saint Lawrence.

The difficulties of crossing between Quebec and Point Levy are so great during the winter, from the almost continual obstruction of the river by ice, that travellers, only, will take the Richmond route during that season ; heavy goods and packages will have to await the opening of the navigation until your Road has been brought into operation. So great is this inconvenience of crossing, that although one half of the distance between Quebec and Montreal by the South Shore is now travelled by Railway, almost all travellers take the North road ; commerce, which, this year, is considerable, follows the same route. At this very moment, hundreds of vehicles are to be met with on that road, laden with copper, tallow, pork and other articles.

This incontestable fact is a proof at the same time of the necessity and of the advantages of the North Shore Railway.

Not only will your Road serve as a highway for the 300,000 inhabitants of the North Shore, and the transport of their

produce, but it will also be the market-road for nearly 70,000 inhabitants of the South Shore ; for, as the Richmond Railway passes through the interior of the lands, to a great distance, the population and commerce of that Shore cannot reach it. Communications will be established by means of small steamers, at the principal points on each side of the River during the summer, and the *ice-bridge* which nature never fails to construct every year, at the same period, at several points of the River above Portneuf, will render the communications still more easy during the winter.

The distance from Quebec to Montreal will be travelled in five or six hours at the utmost ; this will be a saving of six hours on the time occupied by our fastest steamers during the fine season, and a much greater one during the autumn, when fogs and storms retard and almost interrupt our commercial intercourse with Montreal and Upper Canada. In winter, a saving of 42 hours will be effected.

The object of Railways is to shorten time and space ; to bring objects closer to one another, and place them all in the same foreground ; to equalize the advantages of all the points of a Country ; to establish the same level for all markets, by creating but one market, so to speak, by the rapidity of communication. And, if the best road, the most certain of success, is naturally that one which best attains these objects, and best fulfils these conditions, there is none more certain of prosperity than the North Shore Railway.

#### GRADE.

We have spoken of the grade of your Road.

« Mr. Bailey says, that a large portion, equal to 60 per cent on the whole road, will be either level or of an inclination not exceeding 15 feet per mile. There are no grades to exceed 30 feet per mile, except the approach to the River St.

Lawrence, and for a short distance at Richmond, where a grade of 50 feet per mile is required.

« These are the most important features of your Railway, and they may be considered as exceedingly favorable. »

These features are indeed of a most favorable character ; but on the North Shore of the St. Lawrence, we have something still more favorable. In 31 parts of the Road out of 100, there is an absolute level ; in 39 it varies from 6 to 2 feet per mile, and in 10 parts from 15 to 16 feet.

#### COST OF CONSTRUCTION.

Now, as to the cost of construction.

The Richmond Railway, according to the contract entered into between that Company and Messrs. Jackson & Co., will cost £812,500 cy., and even more than £900,000, because Messrs. Jackson & Co., if we are not mistaken, are entitled to an increase equal to that in the price of iron at the time of the contract.

The St. Lawrence Railway which completes the communication between Quebec and Montreal, will cost, when ballasted, over £900,000. It has already cost that sum.

The Montreal bridge, according to Mr. Keefer's estimate, will cost £1,250,000 ; it will undoubtedly cost more.

It will therefore cost the Grand Trunk Company at least £3,000,000 to establish a communication between Quebec and Montreal, and yet this communication which, during the summer, cannot take place without transshipment, will be interrupted during the winter.

To cover the interest on such a capital at 6 per cent, in addition to the cost of keeping the road in operation, which is on the average about 40 per cent on the receipts, it will require an annual net receipt of £180,000, or a gross one of £300,000.

Knowing, as we do, the history of Railways, we believe,

indeed, that this enormous amount of receipts can be obtained.

Let us now examine what will be the cost of the North Shore Railway if the resources of Canada, which are better known at the present day, are capable of inspiring the capitalist with confidence, and whether, in order to construct the Road, *you are not obliged* to have recourse to ruinous expedients.

Your Engineer estimates the cost of the Road at £543,696 2s 2d ; of the stations and starting places at £59,100 ; of the locomotives, cars, &c., at £70,180 ; and of contingencies at £84,122 0s 3d ; total £757,098 2s 5d, and adds :  
« For all these works the estimate provides liberally. In  
« establishing the prices on which it is founded, I have been  
« guided by what has been actually paid for similar works on  
« other lines, taking little account of the singular advantages  
« which the average location of this line offers of reducing  
« its cost below the average. »

This will make, then, for the construction of the road and bringing it into full operation, £4,854 11s 0½d per mile.

The interest on the whole cost, at 6 per cent, will amount to £45,438 annually, and a gross receipt of £75,730.

Thus, of two roads placed between the same two points, one, in order to give 6 per cent, will require a gross annual receipt of £300,000, and the other a gross receipt of £75,730, *only*.

If then, the first is a paying road, and we do not doubt that it is, the second would be infinitely more so ; and where the united roads of Richmond and the St. Lawrence will charge, say 6d. for the transport of an article, the North Shore Railway will carry the very same article for a trifle over 1½d.

We shall perhaps be told that the cost of the Montreal bridge must be apportioned over the cost of the whole of the Grand Trunk Railway, and, therefore, that our calculation is exaggerated. To this we answer, that in making this calcul-



ation, we have left out the cost of constructing and keeping in operation the steamers which must complete the communication by the south, between Montreal and Quebec. And again, the cost of keeping in operation, which is on the average 40 per cent on the receipts, is more or less great according as the road is of greater or less length, and its grade more or less heavy. Thus, while a locomotive on the Reading road has drawn in one train alone, one hundred and fifty iron coal-cars. of the weight of 1268 tons, another, on the Baltimore road, was only capable of drawing one car containing a weight of but twelve and a half tons.

Moreover, the cost of keeping up a road is proportioned to its length. Now, the Richmond and St. Lawrence Roads are longer than the North Shore Railway and their grade heavier.

With all these facts in view, is it not evident that the western trade, that of the valley of the St. Lawrence, of the valley of the Ottawa and of Montreal, will pass by the North Shore of the river and stop at the terminus of the North Shore Railway at the deep waters of the St. Lawrence, there to be received by the 1500 vessels which annually resort to the port of Quebec.

#### DOCKS.

Your Company intend applying to Parliament for power to construct docks in the river St. Charles ; wet docks in which all the vessels resorting to the port of Quebec will be able to land their cargoes, perfectly sheltered from all weathers ; and dry docks for the construction and repairing of vessels.

The valley of the Cap Rouge and that of the St. Charles, are destined shortly to become but one, by the work of art, and to form an immense chain of docks which will surround the city of Quebec ; thus enabling the River St. Lawrence to flow through a bed which was probably once covered with its waters.

The docks and the store-houses connected with them will prove a great source of prosperity to Quebec, and be productive of great benefit to the Company, at the same time that the loading and unloading of vessels will thereby become more safe, more expeditious and less costly.

#### COMMERCE.

Commerce will follow the North route, because it is the shortest, the swiftest, and the cheapest ; because it will do away with the necessity of transshipment, which is always attended with inconveniences, the least of which is the loss of time ; it will follow that route because it will find at your terminus, at the port of Quebec, a more easy outlet than any where else.

The North Shore Railway is the shortest route for the traveller from New York to Quebec ; it will also be followed during the winter by travellers to Boston. It is also the most direct to Upper Canada and to the mouth of the Ottawa.

The termini of your Road will be in the two largest and most commercial cities of Canada and of the whole of British North America.

#### QUEBEC.

Quebec, so rich in historical recollections, so strongly, so picturesquely situated at the summit of its promontory, overlooking as it were one of the finest and most majestic scenes of nature, having at its feet one of the largest Rivers in the world, of which it forms the principal port for vessels from beyond the seas, and which places it in communication with the vast regions of the West by an inland navigation, half the work of nature and half that of art, and the most magnificent in the world,—offers incalculable advantages to commerce, at the same time that its natural beauty and its fortifications attract an immense number of travellers.

The City, including the Town and that part of the Suburbs situate beyond the City limits, contains a population of more than 50,000 souls. In 1831, it only contained 27,000. The real property of the City alone, is estimated by Mr. Serrell, the author of the plan of the Quebec Suspension Bridge, at £5,992,089. This figure includes the value of the assessed property and of the unassessed public property, which, in Quebec, is probably greater than any where else. Mr. Serrell, supposing, with some reason indeed, that assessments are not more strictly made at Quebec than in the greater portion of the Cities in the United States, has established the same proportion as has been established to find the real value of landed property there: as 25 (assessed property) is to 40 (real value of property). Thus it is that he has obtained the amount of £5,992,089.

The value of personal property is much higher, so that Quebec contains property to the value of at least £12,000,000 currency.

The following figures will give an idea of the prosperity and commerce of Quebec.

#### ARRIVALS AT THE PORT OF QUEBEC.

<i>Years.</i>	<i>Vessels.</i>	<i>Tonnage.</i>
1845	1699	628,389
1846	1699	623,791
1847	1444	542,505
1848	1350	494,247
1849	1328	502,513
1850	1341	485,905
1851	1469	573,397
1852	1234	506,123
1853	1351	570,738

The number of vessels which sail from the port every year, is greater than that of the vessels which arrive here ; thus, 1406 vessels, measuring together 599,567 tons, left the port in 1853. The cause of this difference arises from the number of vessels built yearly in our ship-yards.

VESSELS TRADING BETWEEN QUEBEC AND THE BRITISH NORTH AMERICAN  
PROVINCES IN 1853.

<i>Arrived.</i>		<i>Sailed.</i>	
No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
228	23,264.	218	14,069

The trade between Quebec and the Provinces of the Gulf increased considerably in 1853 ; that with Newfoundland was more than doubled from 1852 to 1853. In 1852, 24 vessels, measuring 1944 tons, were sent to Newfoundland; in 1853, the number of vessels sent to the same place was 34, measuring 3,575 tons.

All provisions intended for those Provinces will probably ere long be sent from the port of Quebec.

To the number we have just given, must be added an immense number of small coasting vessels which bring to Quebec planks, boards, laths, staves, shingles, firewood, stone, pork, butter, potatoes, hay, oats and other grain, &c., and cattle of every description, and in return take back every article of commerce not produced in the Agricultural Districts.

The imports to Quebec in 1853, amounted to £1,190,736 15s. 8d. and its exports to, £1,264,432 12s. 8d. The amount of imports is however much more considerable than it appears, inasmuch as the Quebec merchants have entered a part of their imports at the Montreal Custom House.

Quebec is the mart for the lumber from the Ottawa, the St. Maurice and the other tributaries of the St. Lawrence. In 1853, the exports in lumber from Quebec, were 22,129,120 cubic feet of square timber; 1571 thousand (of 1200) 1st quality staves, 1854 thousand puncheon staves, 3,078,475 planks of 1st quality and 6569 cords of laths.

SHIP BUILDING.

« Few Ports, » says Lord Elgin, in a despatch addressed by him in 1852, to the Colonial Secretary, « offer such facil-

ities for ship-building as Quebec, all materials employed in the construction of vessels being cheap ; labor, during the winter months at least, abundant, and procurable at moderate rates, and outward freights at all times secured. »

The following statement will shew the extent of that important branch of industry.

Years.	No. of Vessels built.	Tonnage.
1843	48	13,785
1844	48	15,045
1845	53	26,147
1846	40	19,764
1847	70	37,176
1848	41	19,909
1849	37	24,426
1850	45	30,387
1851	64	40,567
1852	42	27,754
1853	76	51,637

The average tonnage of square-rigged vessels was 852 in 1849, 912 in 1850, 972 in 1851, 964 in 1852, and 1132 in 1853.

The annual average value of vessels built in Quebec, is about £500,000.

A greater portion of the timber used in the building of these ships is derived from the forests situate at some distance from Quebec, and on the line of your Railway. The following quantities of timber are employed in the construction of a vessel of 1000 tons, and are brought at great cost during the winter by the inhabitants of the neighbouring localities:

140 ribs,	a	£3	0	0	£420	0	0
140 first knees,	a	1	5	0	175	0	0
140 second knees,	a	1	0	0	140	0	0
140 third knees,	a	0	17	6	122	10	0
140 futtocks,	a	0	12	6	87	10	0
50 other futtocks,	a	2	0	0	100	0	0
					<hr/>		
					£1045		0 0

50,000 pieces of timber, equal in value to the quantities first enumerated, are also used in the construction of a vessel of 1,000 tons, and might be brought by the Railway at an immense reduction of the cost of transport.

To give you an idea of that cost, and of the impetus which your Railway will give to ship-building, it will be sufficient to tell you that an agriculturist in a neighbouring parish lately said to a ship-builder: « My piece of timber is worth £10, when it reaches here, and even at that price, I gain nothing ; but I will give it to you for £2 10s. if you will fetch it from the road-side on the borders of the forest. »

#### FUTURE PROSPERITY OF QUEBEC.

No one can calculate what Quebec is destined to become. It might at this present moment be as large as New York, if the value of the St. Lawrence and the resources of Canada had been better appreciated by commerce and by capitalists, and if the Legislature of the mother country had not kept our ports so long closed to foreign vessels.

Quebec is nearer than New York to Liverpool by 390 miles, and the St. Lawrence leads from Europe to the West, in a direct line, by means of an inland navigation of 800 leagues. The West already contains ten millions of inhabitants, and is capable of containing 500 millions in its fertile and boundless plains.

Compare the distances, and, especially, the magnificent navigation, to that wholly artificial navigation by means of which New York receives the products of the West and sends it in return those of Europe, and judge then whether it is possible to entertain any doubts respecting the future prosperity of Quebec.

If Quebec has not yet been all that it could be, it is because the prices of freight have been lower at New York, sufficiently so to compensate for the disadvantages of the Erie route ;

and they have been higher at Quebec because the rates of assurance were higher there, and there is no return freight. The rates of assurance were higher there because the dangers of the St. Lawrence had been exaggerated; and there has been no return freight, because they were not aware in Europe of the advantages of this great route of navigation over all others, to penetrate to the very centre of North America and of the vast territory where the old World pours forth in immense numbers the surplus of its population.

Quebec might export as much flour and wheat as all the Atlantic ports of the Union together. To become convinced of this, it is only necessary to cast a glance at the immense extent of the valley of the St. Lawrence, which leads, through navigable and deep waters, to the very heart of the immense fertile plains of the West, and to the very sources of the Mississippi.

Let us examine whether the dangers of the navigation of the St. Lawrence have been exaggerated. Out of 16,685 sea-going vessels measuring together 6,242,326 tons, which resorted to the port of Quebec from 1840 to 1852, inclusively, only 259 were lost, and the greater part of these shipwrecks invariably took place in the month of November, the last and most stormy month of the navigation season. Besides, what description of ships, ship-masters and crews have we had up to the last few years. A ship-wreck has often been a matter of speculation; the captains were frequently drunkards and perfectly incompetent; the crews just as bad. Good ships easily found cargoes, while bad ones lay idle until the season at which tempests, snow storms and fogs abound, and were lost on our coasts, just as they would have been every where else.

A great change for the better is now to be perceived; the vessels are superior, the ship-masters generally better taught, more careful and respectable; ship-wrecks have therefore diminished in proportion.

As a proof that ship-wrecks are generally owing to the bad quality of the vessels, to the want of care, the ignorance and inexperience of the captains and of the crews, we may state that out of 1077 vessels, measuring together 673,472 tons, belonging to Messrs. Pollock, Gilmour & Co., which sailed from the Port of Quebec from 1839 to 1853 inclusively, *two* only were lost ! This extensive house takes particular care that its vessels leave the River before the 15th of November and the stormy and dangerous season ; it does not even insure them.

During the year 1850 there were only two ship-wrecks in the River, and they occurred during a favourable season, so that they are to be attributed to the want of care and foresight on the part of those entrusted with the management of the vessels. In 1851, 8 wrecks occurred, and in 1852, 11.

It is true that the number of wrecks was considerable in the month of November 1853 ; but these were caused by one of those storms which are fraught with ruin and destruction wherever they take place ; but they were caused by the very same storms by which so many vessels were lost in all the European and American seas. Almost all the vessels lost in the River St. Lawrence, during November last, were stove in by the ice and only driven ashore by their crews to prevent their going to the bottom.

The number of vessels wrecked during 1853 within the British dominions, exceeds 2000, and in the United-States it exceeds 1100.

One storm alone casts as many as five hundred vessels at a time upon the coasts of Great Britain, and this is not considered as a drawback to commercial enterprize ; these coasts are not even thought to be dangerous. But if in a similar storm, vessels happen to get lost on the shores of the St. Lawrence, the commercial world takes fright and the whole of the trade rushes off to the Atlantic coasts of the United States, where the danger is far greater, and the ship-



wrecks far more numerous ; this panic is easily shewn by the amounts of assurance premiums. And yet is it rational and can it last? No ; for in order to give confidence to commerce and draw it to the St. Lawrence, the Government and the Legislature of Canada are making efforts which have already proved partially successful, and are an earnest of the future prosperity of this Country and especially of its seaport, Quebec.

A semi-monthly communication already exists between Quebec and Liverpool ; this communication must soon be weekly, and wealthy companies are now being organised for the construction of powerful steamers to take the same route as those of McLarty & Co.

Lord Elgin, in a despatch which we have already cited, thus expresses himself :

« Maps on Mercator's projection, and the fact that indifferent ships, recklessly navigated, have not unfrequently been employed in the timber trade, have contributed to produce an exaggerated popular impression with respect to the length and the perils of the Ocean route of the St. Lawrence. It is not sufficiently known, as regards the former point, that the sailing distance from Liverpool to Quebec is, if the Straits of Belleisle be taken, some 400 miles, and, if the southern course be preferred, from 100 to 200 miles shorter than that from Liverpool to New-York ; and that, as respects the latter, the Ocean Route of the St. Lawrence is by no means peculiarly hazardous to well-framed ships, navigated by officers who are thoroughly acquainted with it, while it is especially adapted to screw or paddle steam ships, from the circumstance that a considerable portion of the passage from one Continent to the other is in smooth water. »

A glance at Captain Bayfield's admirable Naval Charts, will show that there are good harbours in the Straits of Belle-Isle, and good anchorage and soundings on the South Shore of the St. Lawrence, where the depth of the water gradually and uniformly decreases until it reaches the shore. So that with

good anchors and the casting lead, the first and last resources of the prudent mariner, the navigation of the River is not attended with any very great danger.

It is intended to increase the number of light-houses in the Straits of Belle-Isle and on all the points of the River considered as being at all dangerous, in order that the mariner may be constantly lighted during the night, from the moment he enters the Gulf until he reaches the port of Quebec.

Powerful tow-boats, provided through the liberality of the Country, will soon be despatched to the lower ports of the River, to bring up vessels kept back by calm weather or foul winds, thus considerably reducing the distance.

#### THE FISHERIES.

There is a source of wealth, an immense mine which has not yet been opened out by Canada. We allude to the fisheries of the Gulf and of the River St. Lawrence, where the Americans catch, annually, 1,500,000 quintals of fish; the French, 1,000,000; and the English, 1,000,000; the aggregate value being equal to £2,187,500, to which must be added £125,000 for the Seal-fishery, and £100,000 for fish exported annually from the port of Gaspé.

The Americans employ, annually, in this fishery, 37,000 men, 2,000 schooners measuring from 30 to 180 tons, and 10,000 open boats; the French 25,000 men and 500 large vessels; and the English 25,000 men and 520 sailing vessels.

« Labrador has a sea coast of 1,000 miles; in the fishing season a population of over 30,000, who import all the provisions they consume and export to the amount of £800,000 to £1,000,000 annually. The Americans and Nova Scotians, fully alive to the profitable trade and rich fisheries of Labrador have, by every means in their power, endeavoured to foster and encourage it. »

According to the official document, from which we have just given an extract, 326 vessels, measuring collectively 30,196 tons and manned by 11,629 men, left the ports of Newfoundland for the Seal fishery, in the spring of 1851.

Mr. George Hayward, the comptroller of Customs at Newfoundland, thus concludes a letter addressed by him in 1852 to a Committee of the Legislative Assembly of Canada.

« In conclusion, I shall observe, that Newfoundland contains a population consisting of 95,000 souls, who are  
« depending principally, if not altogether, on other countries  
« for food and supplies, and as the prosecution of Agricultural pursuits has not been found to answer, except as an  
« auxiliary to our fisheries, I humbly conceive that a vast  
« extended trade may be beneficially opened up with Canada  
« in the supply by her of all description of provisions, more  
« particularly in the exchange for the staple articles of this  
« Colony, such as Codfish, Cod and Seal Oils, Seal Skins,  
« Herrings, Salmon, Mackarel and Caplin, if such a commerce were established upon a fair basis of Legislative Reciprocity. »

The 2000 American Schooners employed in the fisheries of the Gulf and in the River St. Lawrence, sail with their cargoes for the ports of Boston and New-York, where they receive a bounty, and thence send their fish to all parts of the Union, and to the very extremities of the Western territories.

Besides the fact that Canada can and will before long carry on a large traffic with other nations, in the inexhaustible and boundless fisheries of her Rivers, the fish caught by the Americans and intended for the population of the interior of the Northern States and the ten millions of inhabitants of the Western States, will eventually take the St. Lawrence route, as being the shortest and most direct !

Nature and her laws, with the assistance of man, always succeed in obtaining the upper hand over means which are purely artificial, however gigantic they may be if nature is

against them ; and Quebec will recover its position, if by means of Railways it remains open to the commercial world during twelve months of the year, and if, by means of the Railways which traverse America in every direction she maintains distances in the proportions which nature has given them, for, to the *iron-horse* space is naught.

#### MONTREAL.

The other terminus of the North Shore Railway is in the very centre of the City of Montreal where four roads already meet, by means of which you will be brought into connection with every point of the American Continent ; two other Railways which are now being constructed, will also terminate there. The population of Montreal is over 60,000 ; the value of its real property over £6,000,000 ; its imports in 1853 amounted to £3,384,716 14s. 9d. and its exports to £745,761 10s. It is the commercial mart of Upper Canada and the centre of a fertile district, containing more than 400,000 inhabitants. This City carries on a considerable trade with Quebec, and which would increase beyond all conception, if the communication between the two Cities were more regular and if it were not in fact interrupted during six months of the year.

#### THE RIVER TRADE.

The gross receipts of the first class steamers running between Quebec and Montreal amounted in 1853 to £36,000 ; the loss of two steamers which sunk, is of course not to be taken into calculation. The competition, which has been in existence hardly two years between the first class steamers on the Hudson River and the Hudson Railway, has established the undoubted superiority of the latter by causing the former entirely to disappear. The gross receipts of the Hudson Railway which, however, has only so to speak, just been put

into operation, amounted for the months of June, July and August 1853, to £86,795, and it was calculated that the receipts for the twelve months of the same year would amount to £350,000.

It may then be said at least, that the net receipts of your Road which it will merely draw off in freight and passengers from the first class steamers, will amount to £20,000. And, as this does not shew one fourth of the transit trade carried on between Quebec and Montreal by means of a considerable number of other steamers, barges, schooners and bateaux, in estimating at £50,000 the entire and net receipts which your Railway will take away from the River, we place it at the very lowest figure.

The steamers which run only during six and a half months of the year can only be useful to the population in the neighbourhood of their stopping places ; and the greater part of the population on the two shores scarcely travel during the summer, and much less during the winter, because, during that season, the snow renders the communications difficult, and commercial life among them seems to become perfectly torpid there during six months of the year.

#### IMMIGRATION.

A considerable portion of the European emigration comes by the St. Lawrence, either on its way to Upper Canada or to the valley of the Mississippi. The following is a table of the number of immigrants to the port of Quebec for the last seven years.

<i>Years.</i>	<i>No. of immigrants.</i>
1848	27,939
1849	38,494
1850	32,292
1851	41,076
1852	39,176
1853	36,699

«The admirable and capacious system of inland navigation extending from Quebec for upwards of 1500 miles into the interior of the Continent,» says Lord Elgin, «and the certainty of obtaining freights, are calculated to cause a preference to be given to this over rival routes for the transport of heavy goods, such as Salt and Iron, and of Immigrants destined for the vast regions bordering on the great Lakes. These advantages are not yet generally known, nor have they been appreciated as highly as they deserve.»

Persons came to Quebec this year who have been employed during their whole life time in directing Emigrants from England to America, and who, astonished at the beauties of Canada, its immense resources and the superiority of the St. Lawrence route over that of New York, have expressed their intention hereafter to direct, as much as may lie in their power, the tide of Emigration towards Quebec. We may then rely upon a much greater number of immigrants than we have yet had, and the receipts of your Road will increase in proportion.

#### LOCAL TRADE.

Every where Railways have induced that part of the population to travel which had never been in the habit of travelling and have increased the freight and number of travellers beyond all conception. Thus, the number of travellers on the English Railways, which in 1840 was only 13,000,000, was 73,000,000 in 1853. The population of England, according to the census of 1850, was a little over 21,000,000. That population therefore has moved about more than three times and a half in the space of one year. The number of travellers on the Railways in the State of New York alone was more than 7,000,000 in 1853, and thus the population of that State has moved about more than twice in the same year. The number of travellers between Glasgow and Greenock, which was formerly 110,000 per annum, now exceeds 2,000,000; this is

equal to five times the population of that district. In 1814 the number of travellers between Glasgow and Paisley was 10,000 annually ; in 1842 it exceeded 900,000. During that period the population had only doubled. Traffic had increased nine times, and for one voyage which an inhabitant of Glasgow or Paisley made in 1814, he made forty-five in 1842.

All statistics shew that a Railway of ordinary length derives from each of the inhabitants of the country through which it runs, a net revenue of ten to fifteen shillings. The net profits of the Massachusetts Railway exceed sixteen shillings and three pence for each individual of the population of that State. The Erie and New York Railroad runs through a country 445 miles in length, containing a population of 352,000 souls. The net profits, per individual, on this road, is twelve shillings and six pence. The population consists of 28 souls per square mile. Now, the population of the North Shore between Quebec and Montreal is much more thickly settled. This population does not on an average extend more than fifteen miles in the interior ; but if we take fifteen miles as the average, we find 128 inhabitants to the square mile, and a population of 300,000 souls on a distance of 156 miles. We may then safely value at ten shillings, per individual, the net profit which the 300,000 inhabitants of the North Shore and the 70,000 inhabitants of the South Shore will give to your Road.

#### THE OTTAWA.

Thus far we have said nothing of a branch of Trade which can neither be monopolized by steamers or by sailing vessels, and which floats about on the St. Lawrence and its tributaries at the mercy of currents and foul weather ; we allude to the timber trade.

The value of timber cut on the Ottawa and its tributaries, in immense rafts of which reach Québec after waiting to be floated by the high waters and after having come down the falls and

crossed the lakes, (the most dangerous of all waters for timber), may be estimated at £1,000,000.

The loss incurred on timber before it reaches its destination, which it is sometimes six months in doing, and even twelve months when the waters are not sufficiently high to float it, and never less than three months, is estimated at ten per cent, which on £1,000,000 amounts to £100,000.

The cost of transport of timber from the place where it is cut, to Quebec, is 1½d per foot and ¼ from Bytown to Quebec. If we estimate at 20,000,000 the number of feet of timber cut on the Ottawa, this will give £125,000 for transport.

If we calculate, moreover, the interest on £1,000,000 during three months transport, we have a further sum of £15,000.

But, as timber cut during the winter can only float in the Rivers when the waters are at their highest, it only reaches Quebec very late in the spring, and merchants are consequently obliged in the fall to accumulate several million feet of timber in that port, in order to be ready for the spring fleet. The quantity wintered at Quebec in 1853 was 12,000,000 feet, and that now wintering here exceeds 9,000,000. If we take 10,000,000 feet as the average, and value that quantity at £500,000, we find that the merchants will have to pay six months interest on those £500,000, that is £15,000.

By the Bytown and North Shore Railways, timber would reach Quebec in three or four days at the very utmost, and be in time for the Spring fleet; so that lumber merchants would not be deprived of their capital, as at present, during nine months of the year.

Now all these sums together will give us £255,000, from which we must deduct £62,500 for the cost of transport of the timber as far as Bytown, and £7,500 for interest on the cost of the timber during its transport to Bytown, or £185,000 which must be divided between the Bytown Railway and yours, in proportion to the respective lengths of the two roads,



thus giving to the Bytown Railway £74,000 and to the North Shore Railway £111,000, or £66,000 net profit, after having deducted forty per cent for the cost of keeping in operation.

On the Reading Railroad, (United States,) the gross receipts of which amounted in 1852 to 620,156 2s 6d, coal was brought a distance of 94 miles for little more than 1s 9½d, per ton, including the cost of bringing back the empty cars. This sum of 1s 9½d is equivalent to 2s 11½d for a distance of 156 miles, and yet the cost of keeping in operation does not by any means increase in proportion to the increase in the length of the road. Now £111,000 makes more than 4s 5d per ton, There can be no doubt then that all square timber will be sent from the Ottawa to Quebec by your road.

The Ottawa trade is properly speaking that of Quebec, its natural trade in fact, of which it cannot be deprived unless its inhabitants shew the most unpardonable apathy and allow it to take the Portland route ; this trade is also one which, by means of the great improvements now being effected all over the country, will increase immensely.

To give a complete idea of the Ottawa and of its vast resources, let us quote the imposing words of the Governor General, a disinterested witness, whose opinion will leave no doubt or suspicion in the public mind.

« This important region, » says Lord Elgin to the Duke of New-Castle, in his despatch of the 5th November 1853, « takes the name by which it is designated in popular parlance, from the mighty stream which flows through it, and which, though it be but a tributary of the St. Lawrence is one of the largest of the rivers that run uninterruptedly from the source to the discharge within the dominions of the Queen. It drains an area of about 80,000 square miles, and receives at various points in its course the waters of streams, some of which equal in magnitude the chief rivers of Great Britain. These streams open up to the enterprise of the lumbermen the almost inexhaustible pine forests with

which the region is clothed, and afford the means of transporting their produce to market. In improving these natural advantages considerable sums are expended by private individuals. £50,000 currency was voted by Parliament last session for the purpose of removing certain obstacles to the navigation of the Upper Ottawa, by the construction of a canal at a point which is now obstructed by rapids.....

« The country of the Ottawa, besides its wealth in timber and water power, and considerable tracts of fertile soil, is believed to be rich in minerals, which may probably at some future period be turned to account. It is also worthy of remark, that the route of the Ottawa, the Mattawa, Lake Nipissing, and French River, is that by which Europeans first penetrated the West. Along this route Champlain, in 1615, proceeded as far as Lake Nipissing, and thence to the vast and tranquil inland sea to which he gave the appropriate designation of *La Mer Douce*. The Recollet father, Le Carron, bore the Gospel to the Huron tribes along the same track, and was followed soon after by those Jesuit missionaries whose endurance and suffering constitute the truly heroic portion of American Annals. This route has been for some time past in a great measure abandoned for that of the Saint Lawrence and the Lakes. The distance, however, from Montreal to the Georgian Bay, immediately facing the entrance to Lake Michigan, is, via the Ottawa about 400 miles, against upwards of 1000 via the St. Lawrence. From this point to the Sault St. Marie, the highest of the three narrows (Sault St. Marie, Detroit, and Niagara) at which the regions lying either side of four great lakes, Superior, Huron, Erie. and Ontario, approach each other, is a distance of about 150 miles. It is highly probable therefore, that before many years have elapsed, this route will be again looked to as furnishing favourable line for railway, if not water communication with the fertile regions of the north-west. »

The Ottawa comprises twenty first-class tributaries, the

course of some of which is 300 miles in length and a great number of smaller tributaries. The length of the Ottawa is about 600 miles.

The valley of this River abounds in ores, such as iron, plumbago, lead and copper.

The St. Lawrence, notwithstanding its immense comparative length, has long been preferred to the Ottawa as a route of travel from the West, in consequence of the depth of its waters and its superior navigation. But Railways alter the aspect of the country and do away with every thing, excepting, however, geometrical measurement, and even this is not of any value for trade unless the means of communication are everywhere the same. It is only then, as Lord Elgin says, by means of a Railway that the Ottawa route which is shorter by 600 miles than that of the St. Lawrence, will take that commercial position assigned to it by the Jesuit Missionnaires. Now, a Railway is in progress of construction between Montreal and Bytown: another between Amprior and Pembroke and the two united Railway Companies of Bytown and the North Shore have formed the project of constructing this iron road of the Ottawa to the very banks of the « *Fresh Water Sea*, » (Lake Huron), and even to the « highest of the narrows, » (Sault Ste. Marie).

#### THE SAINT MAURICE..

After the Ottawa, as a source of revenue for your Road, comes the St. Maurice, another tributary of the St. Lawrence. The St. Maurice has hardly been explored and its furthest forests have already fallen under the axe of the woodman. Up to a very short time since, none but the missionary and the *voyageur*, ascended its course, which is more than three hundred miles in length, in a frail canoe; the former to bring tidings of the Gospel to the Indian tribes on the very banks of Hudson's Bay; the latter to give chase to the

animals of the forest and despoil them of their soft and rich furs.

This great river which possesses innumerable tributaries, some of which are 150 to 200 miles in length, receives the waters of a tract of country containing at least 80,000 miles in superficies.

Great companies, carrying on the lumber trade between Canada and the United States, have already constructed immense sawing establishments at Three Rivers, at the very mouth of the St. Maurice; these companies intend to construct a Railway along the banks of the St. Maurice, terminating at the *Piles*, a distance of thirty-three miles from Three Rivers. At the *Piles* a splendid navigation begins; its extent is 75 miles, and it is deep enough for Steamers, which may ascend the St. Maurice as far as the *Fourches*. Government has already expended considerable sums in improving the course of the river and facilitating the descent of timber.

The quantity of provisions of every description which are now being sent to the St. Maurice to serve as food for the thousands of persons employed in the timber trade, is immense; and all our extensive Quebec lumber merchants are at work. The Ottawa lumberer, in ascending one of the tributaries of that river (the Gatineau), cuts his timber at the very place which is washed by the waters of the tributaries of the St. Maurice. The St. Maurice timber is therefore nearer the market than that of the Ottawa by more than 450 miles, and the trade on the first river will soon have attained the same proportions as that on the latter.

The water powers on the St. Maurice and its tributaries are innumerable, and its iron mines have been worked more than 150 years. Every one is acquainted with the celebrated forges of the St. Maurice, situate at a distance of nine miles from Three Rivers, any one undertaking at the present moment to work the iron of the St. Maurice on a large scale, would make an immense fortune. Mr. Hall, of the Falls of

Montmorency, one of our lumber merchants who does the largest business in the forests of the New Ottawa, (the St. Maurice) has established foundries in connection with Messrs. Turcot and Larue of Three Rivers, on the South Shore of that River, at a short distance in the interior.

The town of Three Rivers which had so long been inactive, has taken an extraordinary start since this new branch of commerce has been got up, and is evidently destined to become a great centre of population and wealth. The Banks, which are ever indicative of prosperity, have just established branches there; there are not less than three at present. The price of property has almost doubled in two years.

Everything, then, promises for the St. Maurice the greatest prosperity. Now, that River meets the North Shore Railway at right angles, and no competition can deprive the latter of the commerce of the St. Maurice.

Your Road has this particular advantage, which is an immense one, that at no one of its points can competition affect it either at present or hereafter.

Do we then exaggerate in valuing at £15,000 the annual net revenue which the North Shore Railway will receive from the St. Maurice trade?

#### LANDED PROPERTY AND PRODUCTS.

We have been enabled to obtain from the incomplete census of 1850 some information which will give an idea, at least, of the resources of that part of the country which your road must cross or for which it must serve as a market road.

The superficial extent of that part of the country is 57,635 square miles; its assessed value in real property (with the exception of Montreal and Quebec) £8,529,335, and, if we establish the same proportion (25 to 40) that has been established for Quebec, and we can do so with much more reason

for the country than for the City, because the inhabitants of the agricultural districts conceal, from the census-takers, the value of their real property, from the fear they entertain of being taxed, its real value will be £13,646,936.

Add to this amount the value of real property in the Cities of Quebec and Montreal, and you will have in round numbers £25,550,000.

	1850.		Value.	
Potatoes,	1,325,888	Bushels,	£165,736	
Wheat,	892,529	"	334,698	1 10½
Barley,	89,620	"	17,924	
Peas,	403,143	"	201,572	10
Rye,	89,779	"	17,955	16
Buck Wheat,,	247,921	"	49,584	4
Indian Corn,	87,138	"	32,676	15
Oats,	3,475,847	"	521,327	1
Turnips,	83,758	"	5,234	17 6
Carrots,	23,136	"	1,735	4
Mangel Wurzel,	48,837	"	3,662	15 6
Beans,	5,238	"	1,964	5
Timothy & Grass Seeds,	3,568	"	2,676	
<hr/>				
Total,	6,796,402	Bushels,		
Hay,	207,692	Tons,	872,302	13
Beef, (in barrels)	10,550	Barrels,	31,650	
Pork, (in barrels),	38,221	"	133,776	10
Flour,	38,066	"	81,836	18
Flax & Hemp,	559,014	Pounds,	27,950	
Tobacco,	198,745	"	6,210	15 7½
Wool,	393,138	"	39,313	16
Maple Sugar,	1,694,261	"	58,237	13 8
Butter,	2,228,501	"	104,278	7 2
Cheese,	60,482	"	2,520	1 8
Fulled Cloth,	240,208	Yards,	54,046	16
Linen,	428,024	"	26,939	
Flannel and Cloth not fulled,	227,428	"	28,429	15
Bulls, Oxen and Steers,	27,501		137,505	
Milch Cows,	109,647		438,588	
Calves and Heifers,	51,924		38,943	
Horses,	57,729		865,935	
Sheep,	184,893		92,446	10
Pigs,	81,202		101,502	10
<hr/>				
Total,			£4,449,159	18 0

These figures are considerably under the real amount, but they do not the less give to the produce of these agricultural districts a value of £4,449,159 18 0, to which must be added

the value of the pot-ash, sawed lumber, fire-wood, poultry, eggs, fish, &c., exported in considerable quantities to the United States.

# EFFECT OF RAILWAYS ON PROPERTY.

But it may be said that Railways trust more for their prosperity to the future than to the present ; they give to the future life and wealth, and to real property a value which it never would never have attained without them. This truth has been proved in a most astonishing manner in the state of Michigan. The Southern Michigan and Central Michigan Railroads were finished as far as Chicago in 1852. The amount of real property assessed in the State was, in

1851,	\$21,526,957
1853,	75,935,495
Increase,	\$55,408,538

Real property has more than trebled in value in the State of Michigan in the space of two years. Now we shall proceed to shew you that this increase is solely due to Railways. The Counties through which no Railways run have remained nearly in the same state as they were in formerly, while the others have acquired extraordinary value.

## COUNTIES CROSSED BY THE CENTRAL MICHIGAN RAILROAD.

	1851.		1853.	
Wayne,	3,833,213	Dollars,	16,897,331	Dollars.
Westenaw,	2,561,373	"	7,335,000	"
Jackson,	1,516,459	"	4,810,655	"
Calhoun,	1,637,437	"	3,648,816	"
Kalamazoo,	1,394,182	"	4,810,655	"
Van Buren,	541,663	"	1,683,561	"
Total,	11,964,427	Dollars,	39,246,018	Dollars.

COUNTIES CROSSED BY THE SOUTHERN MICHIGAN RAILROAD.

	1851.		1853.	
Monroe,	960,344	Dollars,	1,336,000	Dollars.
Saint-Joseph,	1,088,344	"	4,119,567	"
Fillmore,	993,240	"	4,167,225	"
Branch,	837,280	"	4,118,674	"
Berriam,	875,749	"	2,874,354	"
Lenawee,	411,666	"	1,209,448	"
Total,	<u>5,166,623</u>	Dollars,	<u>17,825,269</u>	Dollars.

These twelve Counties, alone, carry off three fourths of the total increase, instead of one seventh which would be their share, if the increase had been uniform throughout the whole State.

WATER-POWER, MANUFACTURES, &c.

To give an idea of the sources of wealth which your road is destined to open out, all we have to do is simply to enumerate the principal rivers which flow into the St. Lawrence between Montreal and Quebec, and each of which possesses almost unlimited water-power.

The *Montmorenci* is not on the line of your road, but it reaches the St. Lawrence at a very short distance from Quebec, by one of the most magnificent falls in the world. The waters of this river work immense sawing establishments which furnish timber to the markets of Europe and the United States ; from its mouth to its very source there is a succession of rapids ; falls and cascades, and consequently an interminable water-power.

It is intended shortly to construct a suspension bridge on the very angle of the *Montmorency falls*, from which the visitor will be able at a single glance to admire a work of art, a wonder of nature, and the majestic scene around him.

The *Saint-Charles* furnishes water-power to a great number of grist and saw mills ; two paper manufactories are shortly to be erected on it, and the construction of the Quebec Docks will create new water-power.



*The Cap-Rouge.*—Several grist and saw mills are worked by this River, at the mouth of which there is a large timber dépôt.

The *Jacques Cartier*, a powerful River, abounding in falls, cascades and rapids from its mouth to its source. It contains a magnificent water-power at the very point at which it will be crossed by your Railway. To give you an idea of the value of this River as a moving power, we need only state that Mr. Blacklock, one of the Government Surveyors, established in 1850 that its average height from its source is 3000 feet.

Between the Jacques-Cartier and the Cap-Rouge Rivers we have the fine building stone quarries of Pointe-aux-Trembles, Mr. Dubord's extensive Ship-yard, and a pail-manufactory.

The River *Portneuf*, of sufficient extent, is not so remarkable for the volume of its waters as for the great facility with which it may be turned to use as a moving power. Manufactories of every description : paper, grist and saw mills, etc., are to be found on this River. Mr. MacDonald's paper manufactory absorb a capital exceeding £30,000, and although at work night and day during six days of the week, they are not sufficient to meet all demands. Mr. MacDonald's paper and the rough materials required in manufacturing it, are brought there during the summer in a small steamer; and in the winter the transport is carried on at great cost by means of horses. This branch of industry, which will eventually become an extensive one, is thus thrown back for want of rapid, easy and continuous communications. Your Railway will run at a distance of a few arpents from Mr. McDonald's establishment, which at this very moment can transmit by it six tons daily. There seems to be a disposition to erect on the Portneuf machines for preparing flax and hemp, and to attempt on its banks the culture of those two plants.

There is an iron mine at the Village of Portneuf, at the mouth of the River, a specimen of which took the prize at the Industrial Exhibition of Montreal in 1851, and would probably

have done so at the Universal Exhibition in 1852 if it had not got broken in being extracted from the mine.

The Village of Portneuf is a port for coasting craft. It is intended to establish a regular ferry at this place. Portneuf corresponds with the Platon where there is a magnificent wharf belonging to Mr. Joly, the seignior. The Platon is the stopping place for the mail, and the large steamers ; so that at this very place your Railway will draw off all the commerce of the large and rich County of Lotbinière, which is generally carried on in open boats, left to the mercy of the tides and of contrary winds.

Four miles and a half further on, your road runs close to the inexhaustible stone quarries of Deschambault. There is no finer stone than this, nor is there any which better retains its colour under the influence of the climate.

The *Lacheyrotière*, on which there are carding, fulling, saw and grist mills, quite close to the St. Lawrence.

At some distance behind Deschambault is the *Saint-Anne* which gradually approaches the Jacques Cartier towards its source, and beyond that the *Black River* which discharges itself into the St. Anne, close to the mouth of the latter ; from these Rivers sawed lumber is brought to the St. Lawrence, partly by means of horses.

The *Saint Anne* is larger than the Jacques-Cartier and its banks abound in red pine and other timber of every description. According to Mr. Blaiklock, this river, like the Jacques Cartier, flows from a mean height of 3000 feet, and its water-power is unlimited.

The *Batiscan*, another large River, the mouth of which serves as a Port for coasting craft, and on which there are mills of every description. Mr. Price owns large lumbering establishments on the River *des Envies*, one of the tributaries of the Batiscan.

The *Champlain*. This River possesses great water-power and works grist and saw mills, as well as Mr. Richardson's large Tannery.

The *Saint Maurice*. We have already spoken of this River, the mouth of which is at the town of Three Rivers itself. Three Rivers will be the point of the Saint Lawrence at which your Road will receive, by means of small steamers, the trade of the Counties of Nicolet and Yamaska,

The *Yamachiche* which is sufficiently extensive and affords water-power to grist and saw mills.

*River du Loup* which flows quite close to the celebrated St. Léon mineral springs; it furnishes water-power to the large sawing establishments of Mr. Parker and of Mr. N. C. Faucher, and to several grist-mills. About 350,000 pieces of sawed lumber come out of this River annually.

The *Maskinongé* affords water-power to several grist and saw-mills, and to a hat-manufactory.

The *Bayonne* which flows into the St. Lawrence quite close to the large village of Berthier. This place is probably another point of the St. Lawrence at which a steam ferry will be established between Sorel and the Richelieu.

In the County of Berthier, on the River *L'Assomption*, is the flourishing village of Industry, founded and established by Mr. Joliette of honored memory. At this village, which contains a population of more than two thousand souls, there is considerable water-power by means of which two saw-mills are worked, which saw from 70 to 80 thousand planks annually; three grist-mills, containing ten runs of stones which grind 70,000 bushels of wheat annually, two oat-mills, one pail-manufactory, a foundry, a machine for turning iron, a fulling, pressing and carding mill.

The Industry and Lanoraie Railway which unites with the Rawdon Railway at the Industry Village, reaches the St. Lawrence at Lanoraie, and intersects at that point the North Shore Railway. This road, which, so far, has been in operation during the summer only, carries 800 passengers a week. The number of cars employed every day in the transport of freight and passengers, is computed at 35 to 40 daily. And yet this

Road is not sufficient for the lumber trade, part of which has to come down by the River *L'Assomption* or is drawn to the St. Lawrence in ordinary vehicles.

The *L'Assomption* River, which is navigable for steamers during several months of the year, to a distance of nine miles in the interior, or to the extensive and wealthy Village of Assomption. This River affords water power to an immense number of mills and manufactories of every description, and flows through the centre of a most fertile country.

The Montreal and Bytown Railway Company, in visiting the sawing establishments worked by the Rivers which flow into the Ottawa, on the North Side, between Montreal and Bytown, calculated that it would require 65 cars daily to transport the produce of those establishments alone. From this calculation you may easily judge of the amount of traffic which your Road will derive from the sawing establishments worked by the Rivers which we have just enumerated.

#### LAND CARRIAGE.

Fifty thousand vehicles passed through the St. Foy and St. Charles Turnpikes alone, during the year 1853. This number, which shows the amount of trade carried on between Quebec and the nearest point of the North Shore, is sufficient to give you an idea of the general activity which will exist, when a direct and easy communication shall have been established between that City and all points of the North Shore.

#### RECAPITULATION.

Now, if we recapitulate the probable receipts of the North Shore Railway, we have from the

	NET PROFIT.
Population of both shores,	£185,000
Ottawa trade,	63,000
St. Maurice trade,	15,000
Trade and passengers which will be drawn off the St. Lawrence route,	50,000
Total,	<u>£313,000</u>

This calculation is by no means exaggerated, inasmuch as the Richmond Railway, with less advantageous conditions, expect an annual gross receipt of at least £300,000. Now 316,300 gives an annual interest of more than 41 and 7 tenths per cent on the cost of the road.

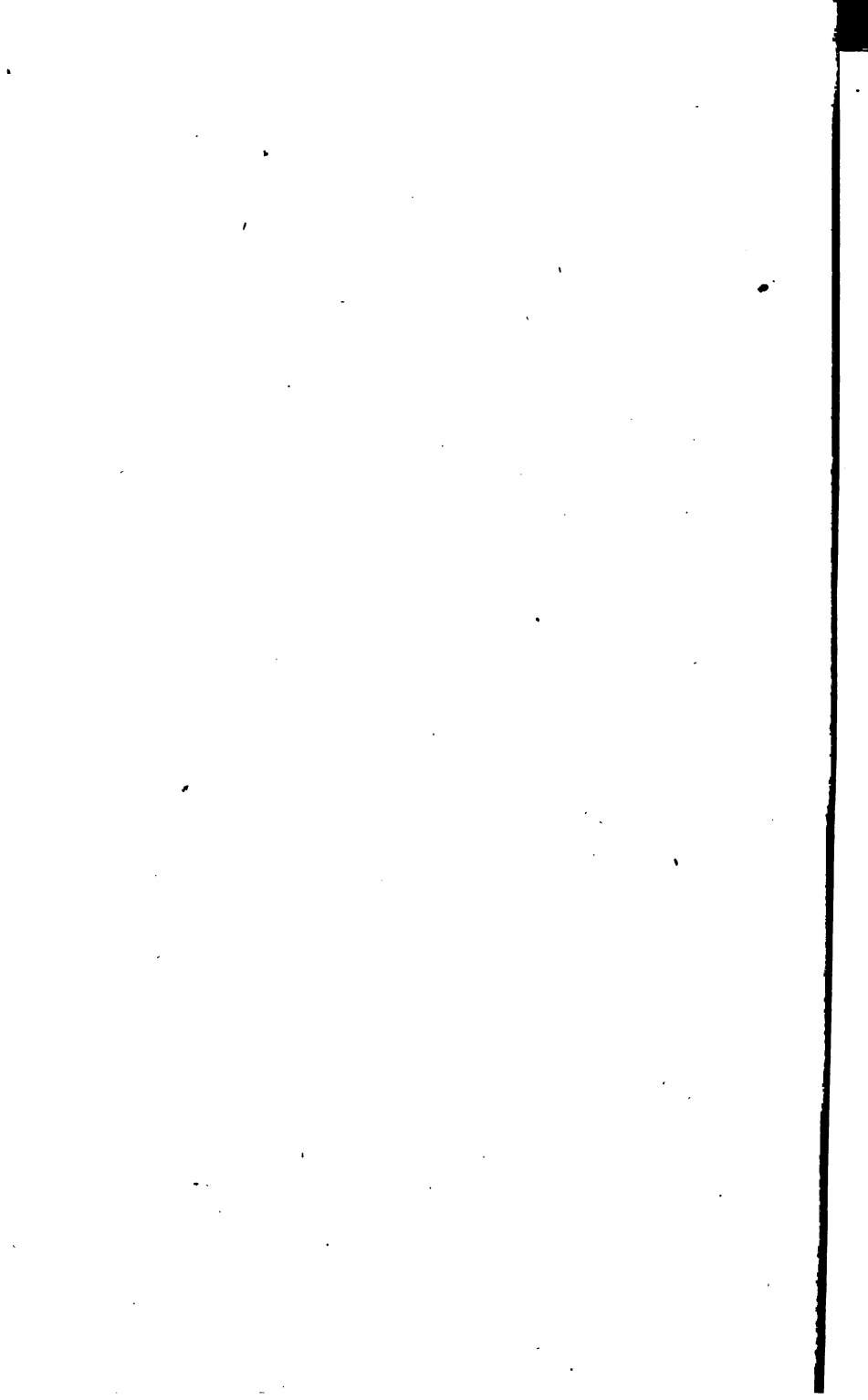
But if, notwithstanding the low figure at which we have calculated the probable net revenue of your Road, we divide that revenue by THREE, you will have an annual interest of more than 13 and 9 tenths on the cost of the road.

Is there any road, then, on the American Continent which possesses such advantages as yours, and with such facts before us can we entertain any doubt of its success?

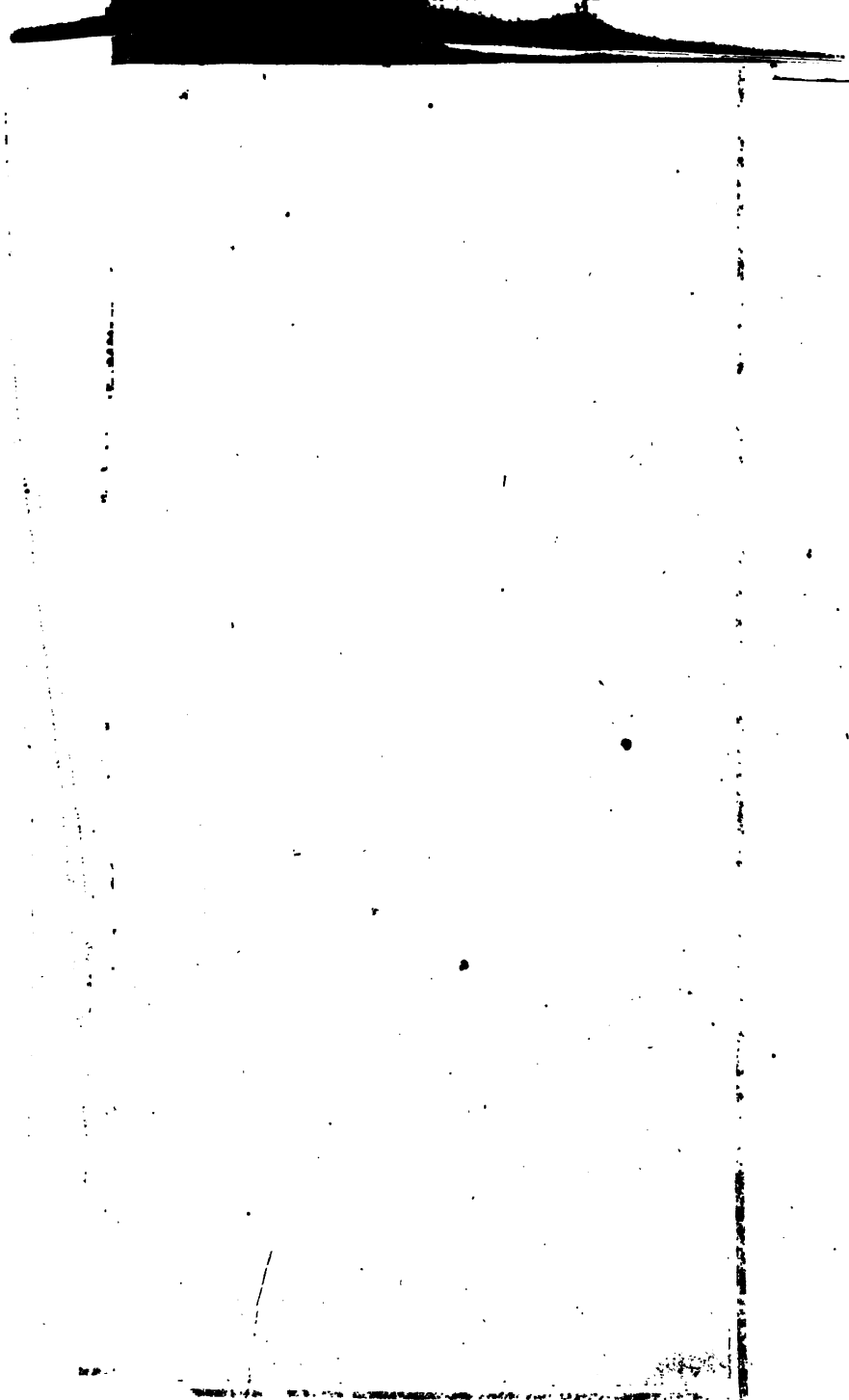
The whole, nevertheless, humbly submitted.

JOSEPH CAUCHON,  
Chairman.

Presented and adopted, }  
17th February 1854. }









# REPORT

OF THE

## TORONTO BOARD OF TRADE,

Received and adopted at the Annual Meeting,  
February 27, 1856,

AND

## REPORT

ON THE

## TORONTO & GEORGIAN BAY CANAL,

BY M. P. HAYES, ESQ.,

SECRETARY OF THE COMMITTEE.

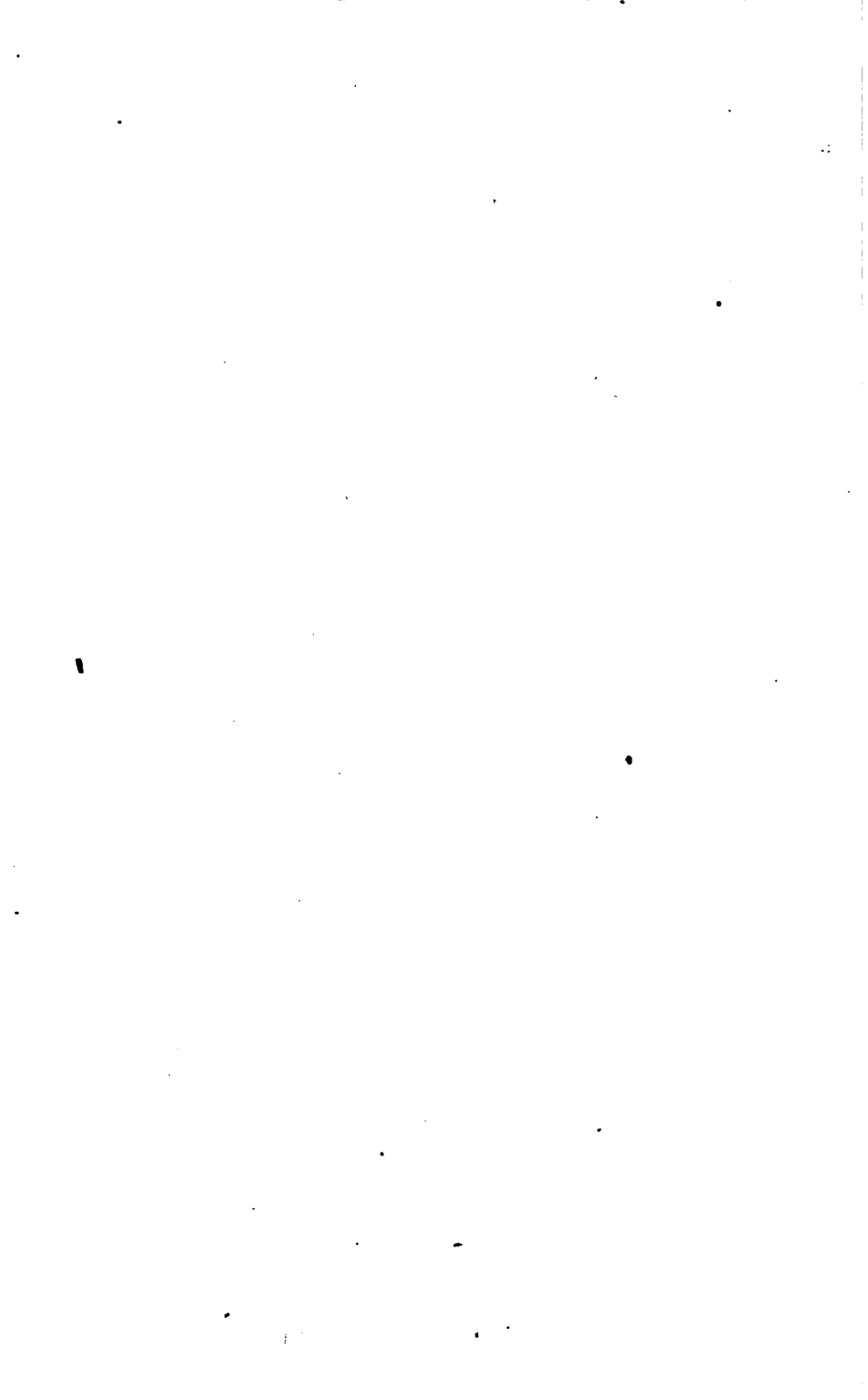
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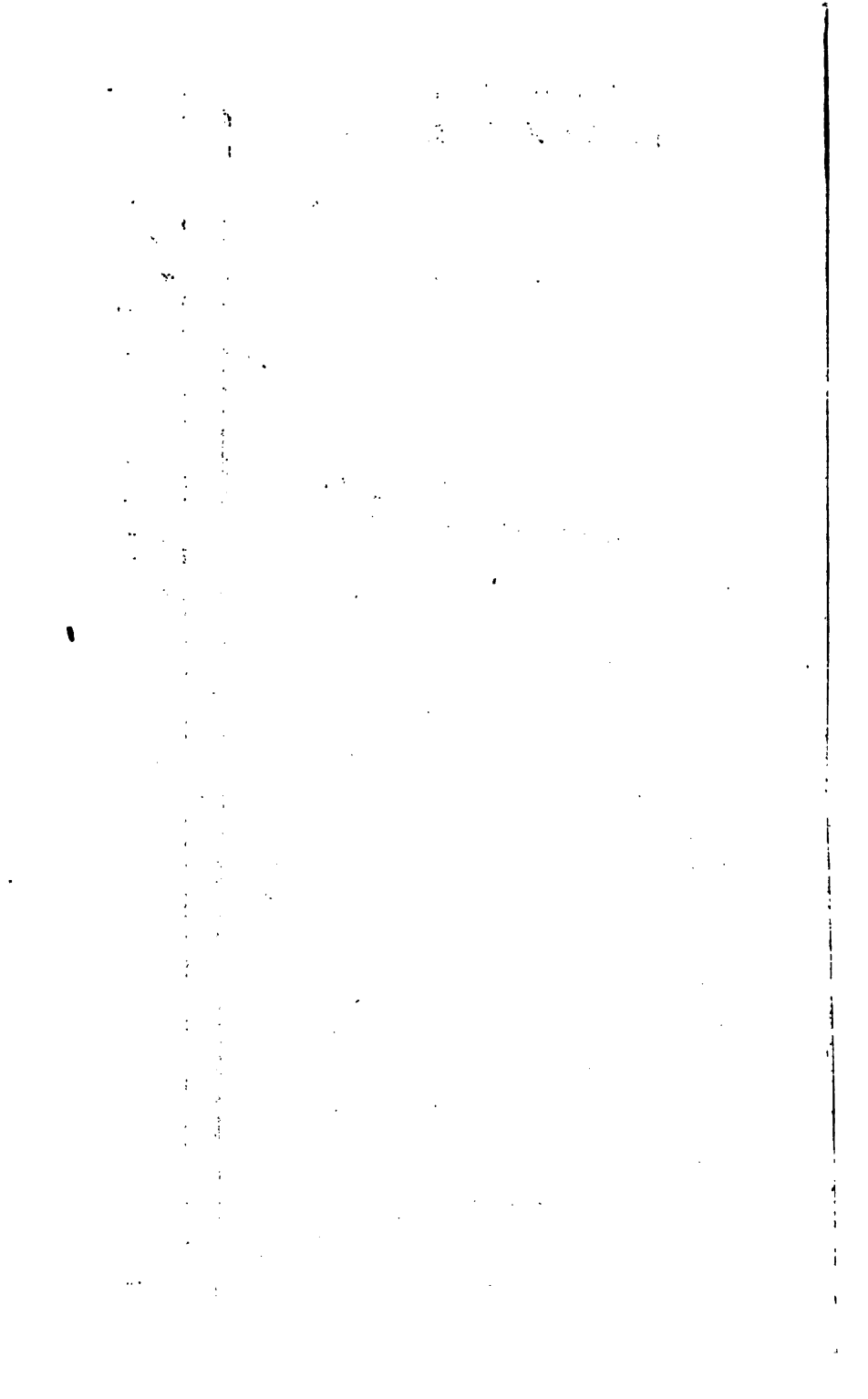
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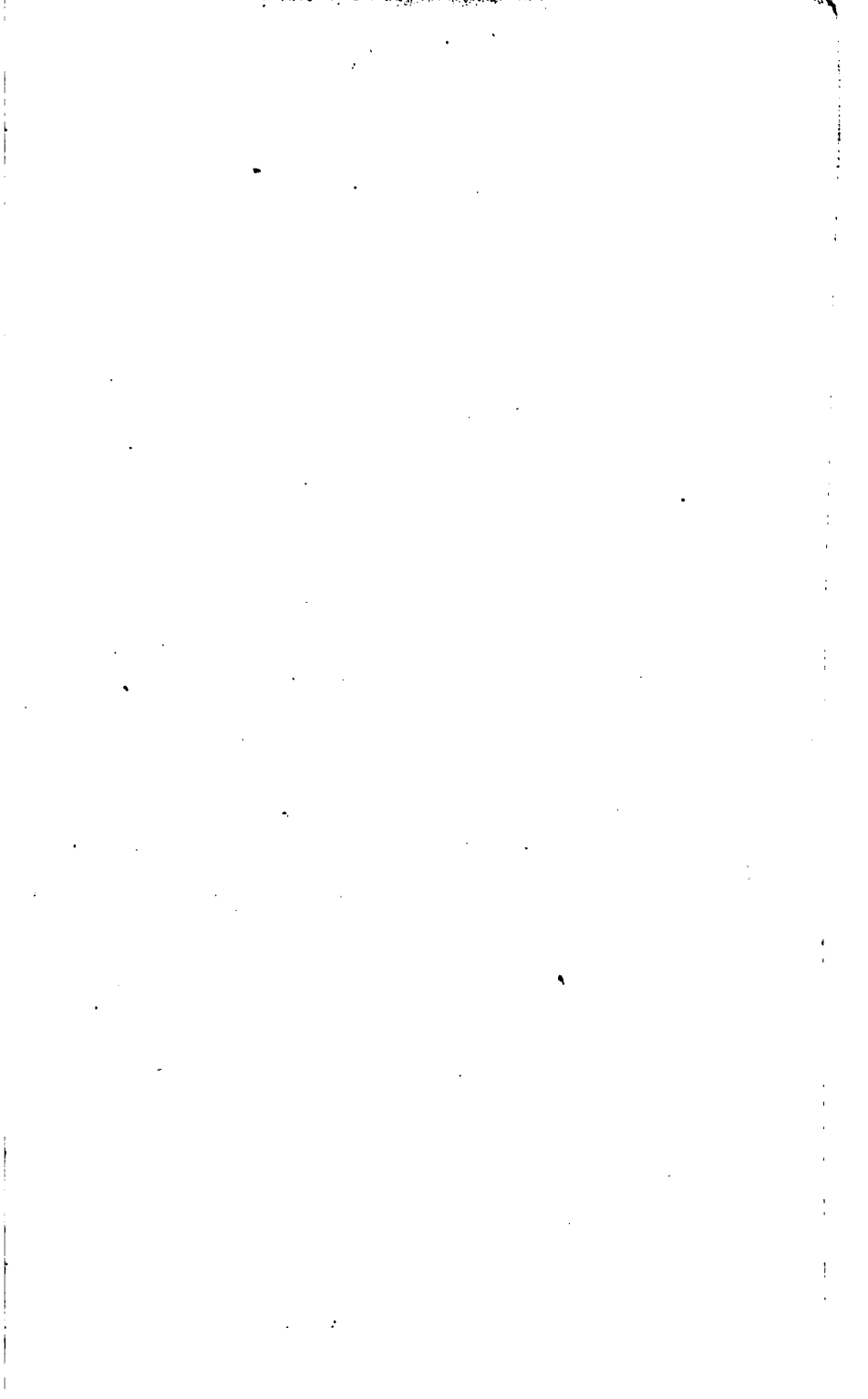
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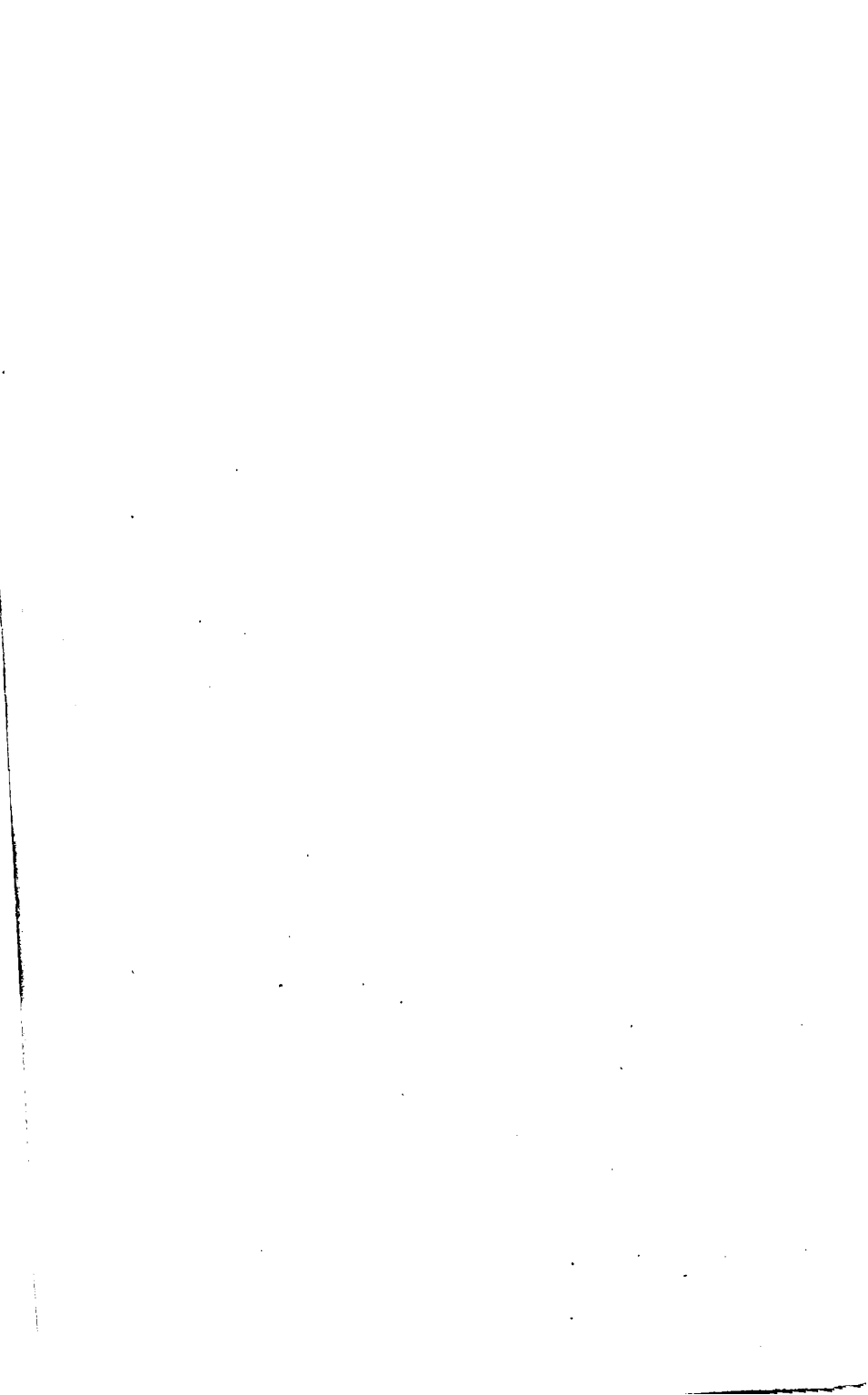
1856.











# R E P O R T

OF THE TORONTO BOARD OF TRADE, FOR THE YEAR 1855.

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The Annual Meeting of the Toronto Board of Trade took place on Wednesday night, in the Toronto Exchange, and was attended by a larger number of merchants than usual. The President, T. Clarkson, Esq., occupied the chair, and J. W. Brent, Esq., acted as Secretary. Several new members were proposed, and some routine business transacted, after which the following Report was read and adopted :—

## REPORT OF THE COUNCIL FOR THE YEAR 1855.

*To the Toronto Board of Trade :—*

In accordance with the annual custom, your Council beg to submit their report for the year just closed.

The subjects which have occupied the attention of your Council have not been very numerous, nor have its meetings, been as frequent as in some years past. The year 1855 has not however been devoid of events interesting to commercial men, and having direct bearing upon the commerce of Canada, and your Council in submitting its Annual Report, does not consider that its remarks should be confined to the consideration of such subjects only as have come within its immediate sphere of action, but that the report should contain a general “ resume ” of the most prominent features of the commercial history of its year of office.

During the past year, the Treaty of June, 1854, between Great Britain and the North American Province on the one part, and the United States of North America on the other, which brought about a partial reciprocity of trade between this country and the adjoining Republic, has been in full operation, and its effects have been sensibly demonstrated by the largely increased exports of agricultural products, and the immense import of free goods, which the trade returns of 1855 exhibit. The exports of Toronto for 1855 being £404,000 against £274,000 in 1854, and the imports at Oswego from Canada being \$12,010,663 against \$2,819,217 ; increase over \$9,000,000. The operation of this law has also had the effect of largely increasing the production of many of our staple exports, by affording at all seasons, a steady, quick and active cash demand for all the products of the farm and the forest. This stimulus to increased production and active demand will doubtless continue with the operation of

reciprocity, as long as the Eastern States continue to be importers of a large portion of their food, even though it may, and probably will happen, that in the fluctuation of prices, the Canadian producer and exporter may not find every year so profitable as the one just closed. While thus admitting that many benefits have followed from the partial measure now in force, and convinced that vastly greater advantages would result to both countries from a full, complete and well considered measure of reciprocity, your committee are impressed with the conviction that our legislators did not sufficiently estimate the value to our neighbours of the privileges which the existing treaty secures to them, in the free navigation of the St. Lawrence river and the Canadian canals, and that the free admission of our grain and raw material into the markets of the United States, which was obtained in return for these very important privileges, was a boon which the continued scarcity and high price of food in their Atlantic cities, and the requirements of their manufacturing States would probably, ere this, have compelled them to seek on terms much more advantageous to this Province. In our eagerness for this free admission of our grain and lumber, we overlooked many important advantages which our relative position to the United States would have fully warranted us in seeking to secure. Among others, the interests and encouragement of our Provincial Marine were entirely overlooked. If a provision had been made in the reciprocity treaty for the admission of Canadian bottoms to American registers, as it should have been, an almost incalculable impetus would have been given to the progress of yet undeveloped tracts of Canadian land, lying along the east and southern shores of Lake Huron, as well as to the already established shipbuilding ports of the province. It is to be hoped that this branch of the reciprocity subject will receive at the hands of Parliament during the present session, a larger share of attention than has hitherto been bestowed upon it, and that every measure calculated to foster a trade, to the development of which the glory and prosperity of England is mainly due, and to the successful prosecution of which, Canada is eminently fitted, will be carried into effect. Your committee perceive with pleasure, that the New York Chamber of Commerce has adopted a memorial to Congress praying for complete freedom of navigation, for the vessels of both countries.

#### DUTIES ON IMPORTS AND TRADE WITH THE WEST INDIES.

The existing customs tariff has been under consideration, and although satisfied with its main features, and averse to any sudden or violent changes in the duties on imports, your committee is of opinion that some



highly beneficial modifications might be made in the tariff, without interfering too much with the public revenue. The articles, which in the opinion of your committee call more particularly for a reduction of duty, are sugar and the manufactures of cotton, which enter so largely into the domestic uses of our people as to be in effect necessities of life. An anomaly exists in the duty on rice, which should be corrected. Under the reciprocity treaty, rice produced in the United States is admitted free while the rice produced in the British East Indies is chargeable with  $12\frac{1}{2}$  per cent. duty, and in connection with this subject, it should be borne in mind that the project of a reciprocity trade between this country and the British West India Islands is deserving of much consideration, as it offers an abundant and cheap supply of the first named article, in exchange for our staples, and a carrying trade, which if fostered by judicious legislation, could not fail to be highly beneficial to Canada.

#### USURY, BANKING AND BANKRUPT LAWS.

The necessity for increased banking facilities to keep pace, in some measure, with the general increase in the trade of the country, the continued development of new sources of wealth, and the consequent requirements of money, has occupied the attention of previous councils, and steps have been taken by nearly all the chartered banks of the province for a large increase to their respective capitals; the required stocks have been readily taken up and some new banks established. And although the banking capital of the province has been nearly doubled within the last two years, there is still, in the opinion of your council, ample room for the safe and profitable employment of nearly, if not quite, as much more.

By the modification of the Usury Laws, statute 16 Vic. c. 80, all parties except the chartered banks and insurance companies, are allowed to lend money at such rates as they may agree on, subject only to the forfeiture of surplus interest over six per cent., if the borrower should think fit to repudiate the payment. *This statute your council consider only a step in the right direction, and would strongly urge the necessity for the total repeal of all legislative trammels upon the trade in money. Your council is of opinion that all partial enactments, giving limited freedom of action in the transactions between borrowers and lenders, can only tend to perpetuate and increase the evils which they are intended to remedy, without bringing about the influx of capital into Canada, which would undoubtedly follow the total repeal of all restrictive enactments on the trade.* If it should be considered that the admission of the chartered and peculiarly privileged banking institutions of the province to the full

operations of unrestricted trade in money, would operate injuriously on the mercantile community, who are, to some extent, dependent for their financial facilities upon the banks, the law might be modified so as to meet this objection by limiting the rate chargeable by banks to the same rate of interest as obtains in the State of New York, namely seven per cent., while the trade between private parties should be entirely unrestricted.

Your council is of opinion that a well-considered bankrupt law should be enacted, both for the protection of the creditor and debtor; with regard to the first, because when a man commits an act of bankruptcy, the honest creditor should be protected from the undue preferences which are so frequent in the absence of any legislative control of such cases; and with regard to the latter, because it seems peculiarly unjust that a man who through the vicissitudes of trade, "over which, in many cases, he may have no control," becomes deprived of the means of liquidating the liabilities of such trade, should also be debarred from the possibility of ever bettering his condition, should any of his creditors refuse to grant him a discharge. The law, however, should be very carefully enacted, and every precaution taken to prevent its fraudulent or tyrannical application.

#### TORONTO AND GEORGIAN BAY CANAL.

The project of a ship canal to connect the waters of the Georgian Bay on Lake Huron, with Lake Ontario and the St. Lawrence navigation, at this port, has occupied a large share of the attention of your council, and has met with much approval at the hands of mercantile men in the cities of Chicago, Milwaukie and Oswego, and in the counties of Simcoe and York.

The first movement regarding the projected canal, was made at a meeting of this Board, which took place in July last; at that meeting a sub-committee was appointed, with power to collect monies, and employ an engineer for the purpose of making a preliminary survey of the country, with a view to ascertaining the practicability and probable cost of the work, and the sum of one hundred and ten pounds was subscribed by the members present, in aid of the survey. The following are the names of the gentlemen forming the committee:—Messrs. Clarkson, (chairman), Thompson, Lewis, Pyper, Whittemore, Harris, Miller, Harrington, (treasurer), and Hayes, (secretary). An account of the proceedings of the committee and of other bodies and individuals favorable to the canal project, up to the 23rd of February, together with some statistical and

general information bearing upon the subject, are contained in the communication from the Secretary of the Canal Committee, which accompanies and forms part of this report. Your Council cannot, however, allow the opportunity to pass without congratulating the committee upon the marked success which has attended their efforts, and upon the very great energy and activity which they have displayed in all the proceedings connected with this movement, and upon the strong feeling of public favor with which the Toronto and Georgian Bay Canal is received, not only through the city and counties more immediately interested in its construction, but also throughout Canada and the neighboring republic.

#### THE REPRESENTATION OF CANADA AT WASHINGTON.

The subject of the necessity which exists for a commercial representation of Canada at the seat of the Federal Government of the United States, was brought forward a short time since by the Quebec Board of Trade, and has occupied the attention of your Council. In approaching this very important question, your Council has not undervalued the difficulties which surround it, nor have they arrived at a hasty conclusion. The chief difficulty which suggests itself to us, as British subjects, proud of our connection with and allegiance to the parent state, is that, if the proposed representative at Washington be an ambassador from the Government of Canada to that of the United States, which he should be to have any weight attached to his suggestions there, that the proposal to establish such representation, may be looked upon as an infringement on the Royal Prerogative, which your Council would be the last to suggest.

It cannot be denied that great necessity exists for some active, intelligent, and influential representation of the commercial interests of Canada, near the controlling power of the United States—and that, under the rapid growth and daily increasing importance of our commercial relations with that country, this necessity is every day becoming more and more keenly felt. We see and point out the want, leaving to the Governments of this country and Great Britain the task of supplying the remedy. Should neither Government see fit to take action such as the commercial men of Canada deem necessary, it will then be a matter of consideration for the different Boards of Trade throughout the Province, whether a simply commercial delegate should be appointed.

#### LOCAL MATTERS.

Among the many evidences of commercial progress exhibited by this city during the past twelve months, your Council advert with much satisfaction to the completion of two important branches of railway com-

munication, the Toronto and Hamilton branch of the Great Western and the Toronto and Guelph section of the Grand Trunk Railway of Canada.

The completion of these works affords a strong guarantee for the future prosperity of Toronto, and while alluding to them, your Council would express the hope that the corporation of this city, holding as it does, a large stake in the stock of the Toronto and Sarnia Railroad, will not allow the interests of this city to be sacrificed by any deviation from the terms of the original contract for the line, which expressly provided for the construction of the Road from the "waters of Lake Ontario at Toronto to Lake Huron at Port Sarnia," this provision (your Council is credibly informed) was fully set forth in the amalgamation agreement, between the Toronto and Guelph R.R. Company and the Grand Trunk, and it now becomes the duty of the Corporation as guardians of the public welfare, to see that no injustice is done to this city, as would be the case were the continuation of that road from St. Mary's to Port Sarnia abandoned or postponed.

The erection of the Toronto Exchange, and the marked success which that institution has met with in a pecuniary point of view as a profitable investment of capital, are strong evidences of our commercial advancement.

The building is in itself a highly interesting addition to the architectural ornaments of our city, and reflects great credit on all connected with its erection. The Council strongly recommend the Merchants of the city to attend regularly the Exchange, as also Millers, Merchants, Manufacturers and Traders from the country, as they may meet there the greater number of those with whom they have business transactions. There sales may be effected, and purchases made, as well as general information obtained, Many of the greatest improvements in the commercial codes of Europe. have had their origin in the Exchange. There are brought to light, and exposed through the experience and intelligence of its members, oppressive laws, and taxes on commerce; and frequently plans are suggested for the extension of commercial relations, and associations formed for carrying on enterprises which individual means would have been unable to accomplish. Prejudices, jealousies, and animosities, are removed by daily associations in the floor of the Exchange, of mercantile men, who through rivalry or competition may have been long estranged. The history of the largest commercial cities of the world, clearly demonstrates the advantages which result from a daily or frequent meeting of all engaged in commercial pursuits; and the commercial com-

munity of Toronto are deeply indebted to the projectors of the Exchange, for the facilities for such intercourse which it affords.

The fact that during the year just closed, two large and first-class ocean vessels cleared from Toronto for Liverpool and London, respectively, one the City of Toronto, built at this port; the other, the Reindeer, on the shore of Lake Huron, two thousand miles from the ocean, is also a gratifying evidence of progress.

Your Council have had under consideration, the great disadvantage which Toronto labours under, as compared with other important shipping ports, in the absence of any public wharf accommodation, a want which is severely felt, and often as severely commented upon by strangers visiting the city. It is also a subject of regret, that the contemplated Esplanade, upon which so large a portion of public money is being or to be expended, should not in any way provide for this obvious necessity. Your Council would commend this subject to the earnest attention of the Harbour Commission through your representatives at that Board, with a view to the suggestion of a remedy, by the construction of such ample wharf accommodation as the present and prospective trade of Toronto imperatively calls for.

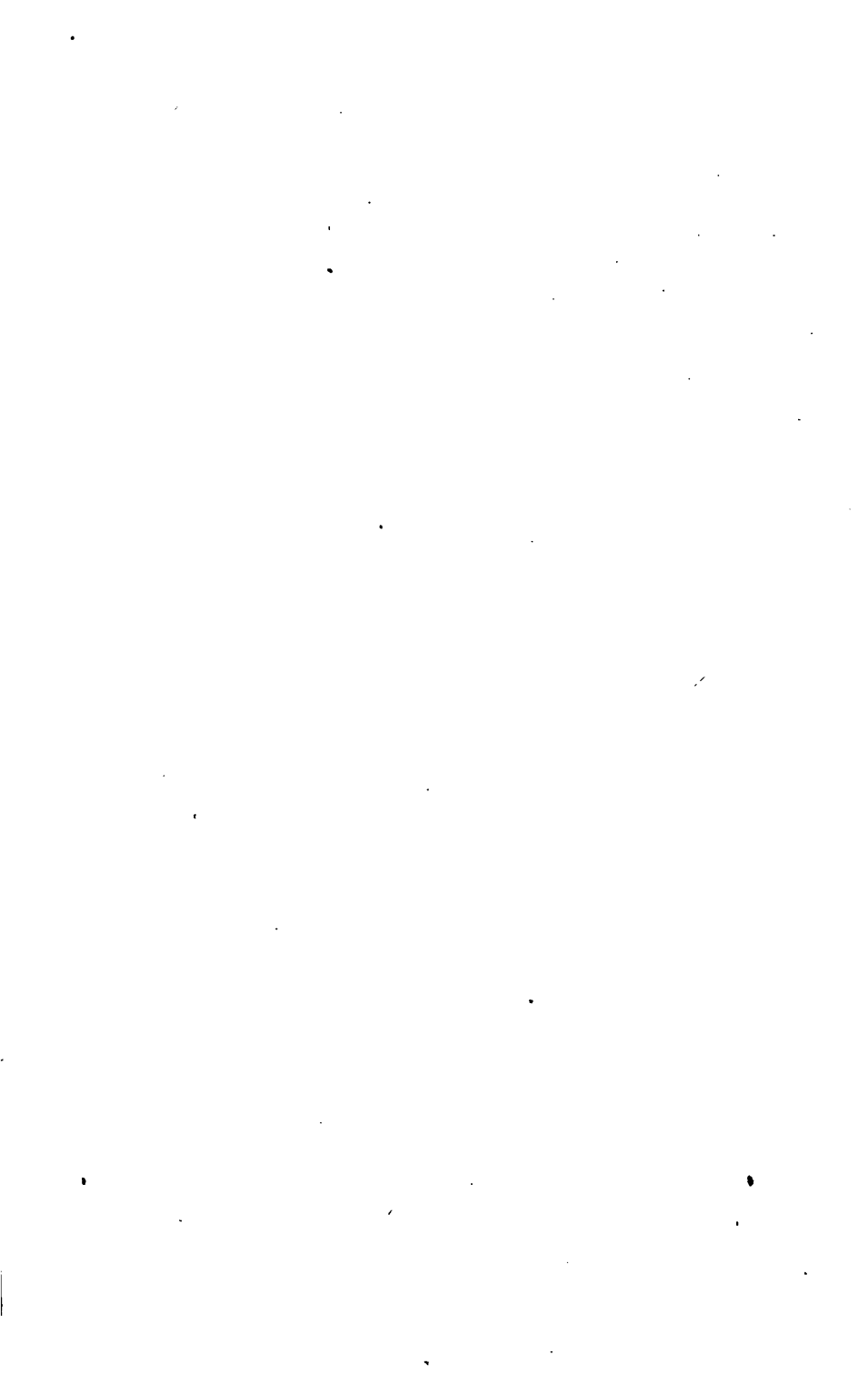
All of which is respectfully submitted.

(Signed)

THOMAS CLARKSON,

*President.*

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# R E P O R T

## OF THE SECRETARY OF THE TORONTO AND GEORGIAN BAY CANAL COMMITTEE TO THE BOARD OF TRADE.

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J. W. BRENT, Esq.,

*Secretary to the Toronto Board of Trade.*

SIR,—

At the request of Mr. Clarkson, President of the Board, and Chairman of the Canal Committee, I have prepared an outline of the most prominent features of the movement in favour of the proposed Toronto and Georgian Bay Canal since the meeting of the Board of Trade on the 18th July, when the committee, of which I have been acting as secretary, was appointed.

Almost simultaneously with the action of our Board of Trade, committees were nominated in Chicago, Milwaukee, Oswego and the County of Simcoe, to aid in procuring a survey of the country between this city and the Georgian Bay, on Lake Huron, with a view to ascertaining the practicability of the proposed work. The committee of Chicago suggested, and those of Oswego and Simcoe agreed to propose that a convention of Delegates from all the localities favorable to the Canal should meet at Toronto.

This suggestion was considered at the first meeting of your committee, which was held on the 23rd August last, all the members being present, and it was unanimously approved of.

The Secretary was instructed to call the Convention meeting by communications, with all the cities, towns and counties interested in the movement.

It was also considered advisable that the Toronto Committee should be in possession of some reliable information on the chief features of that portion of the country lying between this city and Lake Simcoe, to lay before the Convention, as the chain of hills, called the ridges, were supposed to be an insuperable obstacle to the construction of the Canal. With this object, it was ordered—

“That Messrs. Thompson & Clarkson put themselves in communication with Mr. Tully, who, it is understood, is possessed of valuable information on the subject, and report to this committee at next meeting.”

On the 25th August the committee met again, and on Messrs. Clarkson and Thompson's report and Mr. Tully's offer to undertake an examination of the ridges, it was agreed that Mr. Tully's offer should be accepted, and the Secretary was instructed to communicate with that gentleman, requesting him to proceed with the examination. The Board guaranteeing payment of his expenses. Mr. Tully accordingly commenced the exploration of the country, and the Secretary completed arrangements with all the committees for a meeting of delegates in Toronto on the 13th September.

The County Council of Simcoe, in the meantime, with their usual promptness to see and appreciate the value of every great public work calculated to develop the resources of their county, voted £100 towards the expense of the survey.

On the 13th of September, pursuant to arrangement, the delegates from Chicago, Oswego, Barrie, Orillia, and the members of your committee, with several other citizens of Toronto, met in convention at Russell's Hotel. The following is the report of that meeting from the *Globe* of the following day, and as it contains some highly important information in the speeches of Messrs. Crocker of Oswego, and Bross of Chicago, I deem it advisable to introduce it complete :—

According to previous arrangement, the meeting of delegates from Chicago, Oswego, Toronto, and other places, to consider the question of a survey of the country between Lakes Huron and Ontario, with a view to the construction of the Georgian Bay Canal, took place yesterday, at Russell's Hotel, in this city. The following were the delegates :—

From Chicago—Mr. Steel, President of the Chicago Board of Trade ; Mr. Steers, and Mr. Bross, editor of the Chicago "Democratic Press."

From Oswego—Mr. Littlejohn, Mayor ; Mr. Carrington, President of the Oswego Board of Trade ; Mr. Crocker, Mr. Lewis, and Mr. Platt.

From Simcoe—James Sanson, Esq., Warden County of Simcoe.

From Barrie—R. R. Bernard, Esq.

From Toronto—Among those present, we noticed Thomas Clarkson, E. F. Whittemore, M. P. Hayes, T. D. Harris, S. Thompson, W. Howland, C. Robertson, J. Harrington, J. Worts, and J. Bundy, Esqs.

On motion of Mr. Platt, of Oswego, Thomas Clarkson, Esq., President of the Toronto Board of Trade, was called to the chair. He said he regretted that they had not called upon one more able to preside when they had met together on such an important matter. They all knew the object of the meeting, which was to make arrangements for the survey of the country between Lake Ontario and the Georgian Bay, to test the practicability of a Canal from that place. The Canal, he said, was needed as an outlet to the immense and exhaustless resources of the west. It was a question in which all were interested. The interests of Europe required it ; the inter-



ests of Canada and the southern frontier State demanded it; and the interests of the great West required it. In order to facilitate the object of the meeting, the merchants of Toronto had employed a surveyor to make a preliminary survey, whose report would now be received.

Kivus Tully, Esq., C. E., then submitted a verbal report, in substance as follows :—

The proposed route of the canal to unite the waters of Lakes Huron and Simcoe and Ontario, was first explored by me in 1846. At that time I considered further exploration was not advisable, owing to what would then be thought enormous cost. In 1851 a second exploration was made, and I ran a line of levels between the head waters of the Humber and the Holland River on the Lake Simcoe level. The greatest elevation I found at that time was 218 feet. No action was made on the matter by those who employed me, namely, Sheriff Jarvis, Dr. Reese, Dr. Hayes, and the late Vice Chancellor Jameson. On the last exploration made recently I was led to suppose that the ridges to the east of Yonge Street were lower than to the west. On examination I found that this was incorrect, and accordingly turned my attention to the original line, namely, between the head waters of the Humber and Holland River, through the township of King. In tracing a valley which avoids a considerable elevation in two instances, and, after carefully levelling the same, I found that a line can be procured between the Holland and Humber rivers at this point—with a cutting of not more than 145 feet for  $1\frac{1}{2}$  miles, and an average cutting of 40 feet for  $6\frac{1}{2}$  miles. Along the proposed route, north and south of this point, there are no difficulties more than of an ordinary engineering character. The exploration is not yet complete, as the line of levels has not yet been run between the summit and the waters of Lake Simcoe, but as far as I can at present judge, what I have stated may be taken as rather over than under the estimate of the difficulties to be encountered.

After Mr. Tully had finished his report, a general conversation ensued among the delegates. Questions as to distance, lockage, feeder, drainage, &c., were asked and answered, and much information as to the advantages of the different routes proposed was elicited.

The Chairman, to commence the business, called the meeting to order, and requested that gentlemen would express their views on the project.

Mr. Littlejohn of Oswego, said in order to give an opportunity for the expression of opinion, he would move the following resolution, seconded by Mr. Steers of Chicago :—

*Resolved*,—That the immense trade from the Northwest demands the immediate construction of a canal between the upper lakes and Lake Ontario, of sufficient capacity to pass vessels of 1,000 tons burthen.

Mr. Crocker of Oswego, said that he agreed with the spirit of the resolution. It must, however, be taken in its largest sense, as there were many details which would require to receive attention. After referring to the character and importance of the project under consideration, he alluded to the tonnage mentioned in the resolution. He believed that for long voyages the larger the vessels the better. He was one of those who

believed that the day would come when vessels might be loaded at Chicago and the upper lakes, and be sent with safety and profit to Europe; and after having carefully considered the subject, he believed that in order to make the canal the outlet of Western produce it should be constructed large enough to allow vessels of large size to pass. He had lately read with much interest the report of Mr. Jarvis to the Canadian Government, relating to the construction of the Champlain Canal, and the enlargement of the Welland Canal. That report had estimated the cost of transportation of the trade of the West to the sea-board per ton per mile, by the various existing routes, which he proceeded to give. The report also contemplated that the construction of the Champlain Canal and the enlargement of the Welland, would considerably reduce the existing cost of transportation, because larger vessels could trade through, and go longer voyages, and, from calculations which he himself had made, he had arrived at the same conclusion. If this were the case, when these works were completed, how much cheaper would transportation be rendered by the construction of the Georgian Bay Canal? They would not only have larger vessels engaged, but they would save some two or three hundred miles, by the canal across this peninsula. He believed that this view of the subject was interesting to Chicago, to the cities on Lake Ontario and on the St. Lawrence. He said that the subject of the construction of the Champlain Canal would receive the earnest attention of the Lower Canadian people, especially of the city of Montreal, where it was a question of importance, as it would be an important link in the chain of communication to the sea-board. He attributed the reduced rates at which produce could be conveyed to the tide waters by the Buffalo route, to the large vessels which they could sail. There were some that went to that port of six, eight, and even ten thousand tons; but they could not get into Lake Ontario, and, consequently, the trade went down the Erie Canal. He showed, by accurate calculations, the difference between transportation by large and small vessels, and the profits on such to the owners. He then enumerated the various routes now in existence from Chicago to the sea-board, and showed the cost of transportation by them, and considered that the great contest would be between the Mississippi and these routes. He said that it was with no little interest that he saw no resolution moved, and hoped that it would be carried unanimously.

Mr. Bross said—Mr. President and gentlemen of the committee, Mr. Crocker has presented you with some very interesting figures in relation to the lessening of the cost of transportation, if facilities for running larger vessels be afforded. Will you allow me to give you some facts which may assist you, and more especially that portion of the business public who may not have examined the subject, to appreciate the importance of a ship canal from the Georgian Bay to Toronto. It is proposed to construct another great highway to the commerce of the upper lakes to Lake Ontario, and thence to the ocean. Whether the labour and expense necessary to complete the work, if they fall within a reasonable estimate, after a careful survey shall have been made, would be usefully and profitably employed must be determined by the present commerce of those lakes, and its prospective extent and value in the future. The growth of that commerce for

the last twenty years is one of the most astonishing facts in the commercial history of the world, and forms an index by which we may judge what is likely to be its history hereafter. The report of Mr. Andrews, made to the Secretary of War, under the direction of the Congress of the United States, gives the value of the commerce of the lakes for the year 1851 at 326,000,000 of dollars, being more than the entire foreign commerce of the union. We have no means to determine how much of this trade is due to Lake Michigan, but we have some figures by which we can form some idea of value by the trade of that lake for the past year; and if we consider the extent of territory from which that trade now comes, and vast regions from which it is to come, it will enable us to form some idea of the importance of the proposed canal to the future commerce of the lakes. The territory which has built up the City of Chicago does not extend beyond the Mississippi, say two hundred miles west, and a hundred miles north by a hundred and fifty miles south would mark its boundaries in those directions. This gives us an area of fifty thousand square miles. Any of the gentlemen present, who may have travelled over the country, west of Chicago, know that its resources are but very imperfectly developed. What was the trade of Chicago for the past year? She shipped 12,902,300 bushels of grain, making her the largest primary grain port in the world. She packed and shipped alive over 100,000 hogs. There were slaughtered 23,691 cattle, and 10,458 were shipped east alive. The lumber receipts amounted to 4,247,128 feet. The arrivals of vessels were 443 steamers, 409 propellers, 114 barques, 336 brigs, 3,043 schooners, and 70 sloops—total, 4,527. The total tonnage as registered in the Custom House was 984,144 tons. The total receipts of the Custom House are, for 1854, \$582,202 85c.; 1853, \$260,671 17c.; increase in a single year, \$315,131 68c.; The population of Chicago for a series of years will enable you to form some conception of its rapid growth, and the developement of the resources resulting from it:—

1840.....	4,470
1843.....	7,680
1845.....	12,088
1846.....	14,169
1847.....	16,850
1848.....	20,023
1849.....	23,047
1850.....	28,269
1852.....	38,733
1853.....	60,652
1854.....	65,872
1855.....	83,509

The figures for the present year, as given in the above table, include our marine population, which were not included in the amount as published in some of the papers. The total number, without the marine, is 80,028. The value of the manufactured articles as given in the census just taken is \$9,827,700. These are a specimen of some of the items in the trade of Chicago for the past year. What the trade of Waukegan, Kenosha, Racine, Milwaukee was, we have no means of determining; but they were, of

course, very considerable, and tended very materially to swell the trade of Lake Michigan. It should be remembered that so far as Chicago is concerned her trade is gathered from about 50,000 square miles. Let us now turn our attention to the country west of Lake Michigan, and endeavor to form some idea of its extent and resources, that we may estimate as best we may what the trade of Lake Michigan is to be in a few years hence. Let us take a stand point at the mouth of the south fork of the Platte River, say nine hundred miles west of Chicago. Draw a line through this point north and south, and, though we are a long way east of the Rocky Mountains, call the rest of the country south of the Black Hills a desert. It will be observed that all the territory on the Yellow Stone and the Upper Missouri lies west of this line. From our north and south line we begin at or near Alton at about the thirty-ninth degree of north latitude, and go up to the northern boundary of Minnesota and Nebraska. The total distance will not vary much from six hundred and fifty miles. This gives us an area of territory of 585,000 square miles. Add to this 115,000 square miles of the beautiful country on the Missouri and the Yellow Stone, and we have seven hundred thousand square miles of as fine a country as can be found upon the face of the earth, whose productions and trade will swell beyond the figures of the wildest fancy the commerce of the lakes. It may be said that our north and south line reaches too far south. All the trade, as far south as Alton will not seek the lake route, but a large portion of it will; and as you extend the radius west, say to Independence, Missouri, the line becomes very direct through Quincy to Chicago. It is very easy to repeat the figures—700,000, which represent the number of square miles contained in the territory we have named, but it is a far different thing to form a definite idea of the immense country which yet remains to be developed west of the lakes. Let us make a few comparisons to assist us in our estimate of the future of the great Northwest. It should be remarked, however, that there are many beautiful valleys in the Rocky Mountains, capable of sustaining a large population, and more fertile and beautiful than Switzerland, and enough to form half a dozen such States. Add up the number of square miles in all the states east of the Mississippi, except Wisconsin, Illinois and Florida, and you will find that you have only 700,000. If you are started and can scarcely believe the figures, take a newspaper, and cut it in the shape of the territory we have named east of the Mississippi, and lay it on the west of Lake Michigan, and study the map in every possible form, and you will be forced to the conclusion that the North-west contains a territory larger than the twenty-three older States we have alluded to, east of the Mississippi. These States contain some 20,000,000 inhabitants. But again, England, Ireland, Wales, and Scotland contain in all 115,000 square miles, only one-sixth of the territory of the North-west, and have a population of 26,000,000 inhabitants. Were the territory we have named equally populous, it could contain 156,000,000. Turkey, Austria, and France, have an aggregate of 671,000 square miles, and a population of 84,000,000. Need it be wondered at that in speaking of the North-west, Western men are obliged to use terms which venerable old fogies regard as extravagant and even absurd? The simple fact is, that this territory is large enough to make four States of 50,000 square miles each, and is vastly

more fertile, and capable of sustaining a population many times larger than all the older states of the Union. A few words as to the resources of the country under consideration. In minerals it is specially rich; it contains the largest and the richest deposits of lead and copper that are known to exist any where upon the globe. We need hardly say that we allude to the copper mines of Lake Superior and the lead district, of which Galena is the centre. Iron and coal are also found in great abundance. In speaking of its climate and productions, it should be known that the isothermal or climactic lines bend far away to the north, as we go west to the Rocky Mountains. If we mistake not, it is nearly as warm at the north bend of the Missouri as it is at Chicago. Owing to this fact and the richness of the country, the Buffalo range nearly up to the south line of British America. The agricultural resources of these 700,000 square miles are absolutely beyond the power of man to estimate. It is the opinion of some of our best informed men that the great plains over which the Buffalo now range in countless thousands, must, after all, become the great corn-growing sections of the Union; there, too, will be reared the countless herds of cattle and hogs, to be driven here to be packed in beef and pork, to feed the Eastern States, with abundance to spare for all the nations of Europe. And now, Mr. President and gentlemen, with the vast extent, and the endless agricultural and mineral resources of the country west of the lakes before us, what is the commerce of these lakes to be in the next twenty years? It is settling with the most astonishing rapidity. Our railroads are piercing this vast territory. They now reach the Mississippi at Cairo, Alton, Burlington, Rock Island and Dubuque; and more than a hundred trains a day arrive and depart from Chicago. They will soon be expected through Wisconsin, Minnesota and Iowa—and no one can tell where they will end till they reach the Pacific. If products of the West gathered from only 50,000 square miles, have built up a city of 83,000 people in the short space of eighteen years—for it is only a few months more than that since it was incorporated—who dares to estimate what the next seventy years will accomplish? I once heard Captain Hunuvin, a veteran sailor of our city, who commenced his eventful career on Lake Ontario in 1812, after referring to the growth and the endless prospective value of the products of the West, say that “the great God when he made the mighty West made also the lakes and the mighty St. Lawrence to float its commerce to the ocean;” and I might as well attempt to lead the boiling current of Niagara to the sea in a hosepipe, as to ship the products of these 700,000 square miles to the ocean by the Erie and the Welland Canals, and all the railroads now or hereafter to be constructed. The West needs the Georgian Bay Canal and every other avenue to the ocean that can possibly be opened. Mr. Bross illustrated his remarks by a large map of the United States and the Canadas, and their importance will be better understood by the reader by having a map before him when reading them.

M. P. Hayes, Esq., in moving the next resolution, briefly stated what had taken place in Toronto in reference to the proposed work. A committee of the Board of Trade was appointed with full powers to do any thing they might think advisable towards the furtherance of this canal. The committee had had two or three meetings. At the first meeting £110 was sub-

scribed by members of the Board of Trade, then present, towards the survey, and two or three were appointed a committee to canvass the town for further subscriptions. He was also authorized to communicate with the City Corporation to get their aid for the survey. He had, as yet, received no reply to his communication, but he had no doubt that, when the subject was properly laid before the Council, they would see the propriety of aiding the work by a money grant or otherwise. He had the pleasure, also, of being able to state that the Council of Simcoe had voted £100 towards the expenses of the survey, and that the town of Barrie was prepared to do its share of the work as well. He had been directed by the committee to issue notices for a meeting to be held on the 6th instant, but after those notices were sent out, another meeting of the committee was held, at which a letter was presented from Mr. Tully, stating that he had already made a survey with a view to the drainage of the Holland River Marsh, of which he would be happy to give the committee the benefit as well as to make another survey, at a trifling expense. The committee accordingly directed him to engage Mr. Tully's services, and to postpone the meeting till such period as his report could be received. That report they had now heard, and it was of such a nature as to convince them that the thing was at any rate practicable. The great difficulty that usually had to be contended against in the construction of such works, was in regard to head water, but on that point in the present case there was no difficulty, as they were all satisfied that Lake Simcoe had plenty of water. Another difficulty was as to the amount of lockage, but that was not of a nature to be an insuperable objection, either as regarded the cost, or the time that vessels would occupy in passing through. Whatever the cost might be, provided only they could show that the work would be useful, and ultimately profitable, they would find capitalists in England ready enough to aid them with funds. He begged to move the following resolution:—

*Resolved.*—That from the information relative to the country through which the proposed Canal would pass, which has been given by Mr. Tully as the result of his preliminary examination, and from the very interesting and important statistical information which has been furnished by Mr. Bross, of Chicago, and Mr. Crocker, of Oswego, this meeting is satisfied that a thorough survey—with estimates of the country between Toronto and Lake Simcoe, and between Lake Simcoe and Lake Huron, with a view to the construction of a ship canal, should be immediately proceeded with, and that the various towns and counties interested in the work be called upon to subscribe sufficient funds for the expense of the survey.

Seconded by Mr. Crocker, Oswego, and carried unanimously.

*Resolved.*—That a Committee consisting of three persons from each of the cities of Chicago, Milwaukee, Toronto, Oswego, and the county of Simcoe, be appointed to take steps to have a thorough survey of the route for a Ship Canal, capable of passing vessels of a thousand tons burden from Lake Huron to Lake Ontario at Toronto or its vicinity, and that the said committee have full power to collect funds, engage engineers, and when the survey is completed and the engineer's report made thereon, said com-

mittee to report to the Toronto Board of Trade, and that the following gentlemen compose the said committee:—

Chicago.—Messrs. Thomas Richmond, George Steele, Wm. Bross.

Toronto.—Messrs. Clarkson, M. P. Hayes, and S. Thompson.

Milwaukee.—Messrs. Crocker, Wells, and Walker.

Oswego.—Messrs. Crocker, Carrington, and Lewis.

County of Simcoe.—Messrs. Sanson, R. B. Bernard, and Steers.

The first committee meeting to be held in Toronto, and the members thereof in case of sickness or absence, to have power to appoint a substitute.

Seconded by Mr. Lewis, Oswego.

The resolution, as originally worded, provided that the survey should be made from Lake Huron to Toronto.

E. F. Whittemore, Esq., moved the next resolution:—

Mr. Sanson suggested that the language should be made more general, by substituting Lake Ontario for Toronto.

Mr. Tully remarked that he had no hesitation in saying that the only practicable route was by the Humber. He did not think there was any practicable route to the east of Toronto.

Mr. Sanson said he did not believe so either, but he thought the resolution should be made more general.

Mr. Bross, Chicago, suggested that for the words "to Toronto," should be substituted "to Lake Ontario at Toronto, or its vicinity."

This, after some further conversation, was agreed to, and the resolution passed unanimously.

Mr. Crocker, Oswego, moved the next resolution:—

*Resolved*—That the great increase of the commerce of the Lakes present and prospective demands an immediate and organized effort to bring the facts on this subject before the public, with a view to pressing on the Canadian Government, the importance of duplicate locks on the Welland Canal, or a new canal, if practicable, between Toronto and Lake Huron, and that with a view to elicit information necessary to a full understanding of the subject, this meeting would be pleased to see a general convention called by Canadian Boards of Trade, inviting delegates from the Boards of Trade of all the cities on the lake.

Mr. Crocker, in supporting the above, said he had had a conversation with the Hon. John Young of Montreal, and other gentlemen, on the subject, and his idea was to have the convention held in Montreal or Quebec, with a view to bringing the matter fairly under the notice of members of Parliament, and other public men in Lower Canada, and enlisting their co-operation in the work. In Upper Canada, he believed, the importance of the matter was already fully understood.

Mr. Littlejohn, Oswego, seconded the resolution.

Mr. Whittemore said it should be borne in mind that Toronto must be the head-quarters of this agitation, especially as the Government would be here in a few weeks, and Parliament in the course of a few months.

Mr. Crocker agreed with Mr. Whittemore, that Toronto should be the head-quarters of the agitation, but thought at the same time that many advantages would result from having the general subject discussed at Quebec or at Montreal.

The resolution was then agreed to, and shortly afterwards the meeting separated.

A meeting of the committee was held immediately afterwards, to consider the steps to be taken, in pursuance of the object for which they had been appointed.

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On the morning following the Convention the committee met, all the members being present, and organized by appointing Mr. Clarkson President; Mr. Harrington, Treasurer; and Mr. Hayes, Secretary.

It was decided that Mr. Tully should be employed by the committee to complete the survey of a route for the canal from Toronto *via* Lake Simcoe to the Georgian Bay on Lake Huron, to report to this committee with a topographical description of the country, levels, heights, sections, and approximate estimates for the construction of a canal capable of passing vessels of one thousand tons burden, a profile of the line to be finished with the report. It was also arranged that the members of the Chicago delegation should secure the services of one of their most eminent engineers, to go over the ground with Mr. Tully, and act with him as consulting engineer in the progress of the survey. In pursuance with these arrangements, Mr. Tully has been actively engaged with a party in completing the survey. The Chicago delegates having engaged Col. R. B. Mason to act as consulting engineer, that gentleman arrived here, by appointment, in November last, and went over the whole of the ground with Mr. Tully. Col. Mason was a week engaged in making his examinations, and, on his return, expressed himself highly satisfied with the general features of the country, which he considered peculiarly favorably situated for the construction of the proposed work, with the exception of the heights called the "Ridges;" this chain of hills he did not consider by any means an insurmountable engineering difficulty, as will be seen by the following extract from a letter from Mr. Tully:—

TORONTO, February 1st, 1856.

*To the Warden and Members of the Council of the United Counties of York and Peel, in Council assembled,*

GENTLEMEN :—

"Aware that strong efforts are being made by the advocates of rival routes for the proposed canal to Lake Huron, to disseminate the idea that the "ridges" offer an insurmountable obstacle to the construction of



such a work, from Lake Simcoe to Toronto, I addressed a note to Mr. Tully this morning, requesting him to enable me to contradict such statements, and I have now the honor to submit to you the following extract from his reply :—

[Copy.]

TORONTO, January 31st, 1856.

TO M. P. HAYES, ESQ., SECRETARY OF THE COMMITTEE ONTARIO AND HURON SHIP CANAL :—

“DEAR SIR,—

“In reply to your communication of this day's date, requesting information with regard to the practicability of a work for the construction of a Ship Canal between Lakes Ontario and Huron, I have to state that from recent examinations, and from actual survey, I have no hesitation in saying that there are no insurmountable obstacles to the construction of the above work.

“On the contrary, the explorations have tended to dispel what at first appeared to be impracticable difficulties. In this opinion I have been fully sustained by Col. R. B. Mason, the late Superintendent and present Chief Engineer of the Illinois Central Rail Road, who travelled over the whole of the proposed route with me in November last.”

• • • • • KIVAS TULLY.

“It is unnecessary for me to urge upon you the immense advantages which would necessarily follow the construction of the proposed work, both in a national and local point of view, but it is highly important that the Committee should not be prevented (by the want of the very limited pecuniary assistance which they ask from the County) from having the survey vigorously proceeded with, and completed during the approaching session of Parliament.

“Referring to the communications which I had the honor to address to the Warden of the United Counties on the 10th December, and 31st January, and confirming their contents,

I have the honor to be

Gentlemen,

Your very obedient servant,

M. P. HAYES,

*Secretary of the Committee of the Toronto and Georgian Bay Canal.*

“The survey being as yet unfinished, I am unable to give the Board any detailed information regarding the quantity of excavation, the probable cost or other details of the work. Three lines are under survey, and the committee expect to be in possession of full details of the peculiar features of each line, with estimates of the cost in each case, by the 1st of April next.

The members of the Oswego committee have honored the Treasurer's drafts to the extent of £100. The Warden of the County of Simcoe has paid the sum of £100, voted by the County Council. The committee have obtained subscriptions in the city to the extent of about £150 in addition to the amount subscribed by the members of the Board of Trade. The Chicago committee have undertaken to pay the consulting engineer, but as it was considered advisable that the survey should be much more extended than was at first considered necessary, further means are required to enable the committee to carry out the understood wishes of the Board and the Convention.

It will be seen by the subjoined report of proceedings in the Council of the United Counties of York and Peel, that my application for aid has been favorably entertained, and that a vote of one hundred pounds in aid of the survey was unanimously passed by that body. I insert the proceedings in full, on account of the strongly favorable opinions on the project, which the council, composed as it is of practical cautious men, have expressed, and with the expectation that the Warden's remarks may produce a beneficial effect, by awakening the citizens of Toronto to a true sense of the importance of this improvement.

COUNTIES COUNCIL, }  
Tuesday, February 5, 1856. }

Mr. Gamble brought up the second Report of the Committee on Finance and Assessment. The Report stated that the real estate belonging to the county, without including the lot in rear of the present Court House—the possession of which is now under litigation with the Corporation of the City of Toronto—is put down at £27,525 9s. 9d., which seemed far beneath real value. The whole of the rateable property real and personal in the United Counties, as assessed for 1855 is, £5,183,600. If that amount were rather more than doubled, say in round numbers £10,500,000, it would be a nearer approximation to its true value; consequently when £5,000 will cover the current annual expenses of the counties, the amount assessed by the Council within the year has barely exceeded that sum, the rate is a fraction over one-ninth of a penny in the pound of the actual value of the rateable property held in these United Counties. The documents from which these abstracts are made evidence a state of financial prosperity, not second to that of any county in the Province. The Treasurer has placed to the credit of the county the sum of £319 13s. 1d., which with £87 19s. 6d. previously deducted, amounts to £418 12s. 7d., being £10 19s. 1d. less than the sum directed to be paid by that officer, by the Report of the Finance Committee in June last. This deficiency arises from the per centage on the non-resident land tax, and the Treasurer declares that he has paid over the whole of the money received by him on that account since the provisions of the By-laws, Nos. 6, and 21 came into force. The next important matter to which the

attention of the Committee was called was the application from the Toronto Board of Trade, made through Mr. Hayes, Secretary to the Committee for the Toronto and Georgian Bay Canal, asking for the grant of money from the Counties to aid in liquidating the expenses of a survey between lakes Ontario and Huron, now making for the purpose of ascertaining the practicability of constructing a ship canal to connect these two lakes. This project of a ship canal, if possible, is unquestionably of immense consequence to the United Counties. It would not only open up a ship navigation from the head of Lake Superior to the ocean, thus forming a new outlet to the carrying trade from the vast grain-producing countries of the west, through the very centre of the United Counties, with Toronto for its port on Lake Ontario; but the very numerous locks that must pervade the entire length of the canal would also furnish the means of supplying machinery to manufacture the exports of grain on its way to the sea-board, and might, in addition, supply Toronto with an almost unlimited water power, and the means of making it at once both a great commercial mart and manufacturing city. To ascertain whether these advantages are within our reach is the object of the survey now making, and the question so deeply involves the interest of these Counties, that the committee are of opinion that they should contribute towards defraying the expense, and therefore recommend that the sum of £100 be granted for that purpose. The report next alluded to the accounts rendered to the Registrar for making extracts from his books for the new Registry office of the county of Peel. The amount was £275 14s. 7d. The committee consider that the County of Peel should bear this expense. The application of Henry May, late turnkey in the jail for aid in consequence of loss of health while in that situation, and consequent inability to attend to the duties; while the committee would not wish to make any precedent of granting pensions, yet from the fact that May has been 13 years a turnkey in the jail, and being now entirely disabled, they recommend that a gratuity of £25 be given him. The application from the Court House keeper was also taken up, and the committee recommended that a small addition be made to his salary.

#### COUNCIL IN COMMITTEE.

On motion of Mr. Gamble, the Council went into Committee of the whole on the Finance Committee's Report.

Mr. Bridgeford in the chair.

On motion for the adoption of the first clause, the Warden stated that the city did not claim the property referred to, but claimed to have a contract made between the city and the District Council, and they intend to file a bill in Chancery to compel the County Council to carry out that contract. The question as to the real owner of the property was a different thing.

Mr. Gamble said, with regard to the Deed of Trust, he believed he was the oldest surviving Trustee. He thought it possible that the deed might be found in the office of the Clerk of the Peace.

On the motion for the adoption of that clause of the Report which recommended the Council to grant £100 in aid of the Ship Canal, the

Warden said he looked upon it as one of the most important undertakings that was ever in the county or in the world. He was satisfied that there was no canal in existence, or proposed, likely to do the amount of good which this one would, if constructed. He had no doubt that it would make the City of Toronto only second to New York in America. No other city but New York would have the advantages which Toronto will have if that canal is constructed. The whole of that vast extent of country west of Lake Michigan must come this way, and they could not estimate the wealth and resources of this far West. It will not only bring the whole of the produce of that vast country this way, for no other route could compete with it—for nature has made it the most available, and most direct route to the ocean—but it will make the whole county one continuous city along its route. If £100 would enable them to complete the survey, he was sure posterity would never blame them for having voted it, and if ten times that amount would put the matter beyond doubt they would be justified in voting it. As for the time when this work would commence that would be for the City of Toronto to say. He was sorry to see that the City of Toronto had been dormant so long in this important work. They had excited themselves to get an Esplanade because they considered it would be of advantage to them, but he could not understand why the merchants of Toronto had allowed this matter to lie over so long. Since it has been talked of they have done nothing. No report had been issued by them, while exertions had been made to bring the old middle route again before public notice, and the Montreal people had been stirring themselves to get the route by the Ottawa again into favor, although they seem to be losing hope of a canal now, and are speaking of a railway. But should a railway be constructed it would in no way interfere with this canal. He thought the most strenuous exertions should be made to bring this matter before the Legislature in its strongest light, and if the report of the survey was anything feasible, he did not think that any amount of money would be too great to expend upon its construction.

The clause referring to the amount chargeable for the extracts of the New County of Peel, caused a good deal of discussion, and was ultimately withdrawn. The clause in reference to the gratuity to Henry May, caused some discussion, and was voted down; the majority approving of a personal contribution, which was immediately entered into, and a large sum subscribed.

The Warden having resumed the Chair, the report as amended was adopted, and the Council adjourned.

Application has also been made to the City Council for a grant in aid of the survey, and should that body not deem it expedient to apportion some funds for the purpose, it will become necessary for the Board of Trade, in conjunction with the general committee, to take measures for the procurement of the sum still required.

In the absence of any precise information from the engineers as to the details of the work, and its probable cost, the committee have

deemed it expedient that I should furnish the Board with such general information and statistics bearing upon the financial prospects of the canal as I may be able to give. With this view I have prepared the small skeleton map which accompanies this report, and which may be useful in illustrating the following remarks :—

The subject naturally divides itself under several heads, which are probably most succinctly stated by the questions which present themselves at the outset, namely :

1st. What are the advantages which would follow the construction of a canal from Toronto to the Georgian Bay on Lake Huron ?

2nd. Are these advantages sufficient to warrant the construction of the work in a national, commercial or military point of view ?

3rd. Upon what trade would the canal depend for its revenue, and what amount of outlay do the reliable statistics of that trade or such portion of it as may safely be calculated to use the canal warrant, with a view to remunerative returns ?

4th. What would be the effect of the canal upon the existing public works of a similar nature in the Province, if injurious, to what extent, and if beneficial, how much so, and is such advantageous action likely to be permanent ?

5th. Is it a practicable work within such an amount of cost as is fully warranted by the answer to question three ?

With reference to its practicability—the water of Lake Simcoe is 469 feet above the level of Lake Ontario, and 109 above Lake Huron\* ; it follows, therefore, if Lake Simcoe is to form a portion of the navigation, that lockage to the extent of 578 feet, or 44 locks of 13 feet 6 inches each will require to be constructed. Of these locks 34 will be comprised in the distance 28 miles from Toronto to the head of navigation on the Holland River. This river is now navigable for vessels drawing about 6 feet for 9 miles from its confluence with Lake Simcoe. The daming of that lake at its northern outlet, near the entrance of the Severn, would probably raise the water of the Holland River to 8 feet, the remaining 4 feet would be produced by dredging. The river flows over a loose muddy bottom, through which a pole can be easily driven 7 or 8 feet, and is already in several places of nearly, if not quite, the required depth. —

If the Nottawasaga route is adopted, we have 28 miles of canal to make from Toronto to the Holland River, 9 miles of river navigation to

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\* Bouchet.

improve, 22 miles of natural navigation by Lake Simcoe to Barrie at the head of Kempenfelt Bay, 10 miles of canal to cut to the Nottawasaga River, and 35 miles of the navigation of that river to improve, in order to reach Lake Huron at the foot of Nattawasaga Bay. The Nottawasaga carries a depth of ten feet for about 4 miles from its mouth, and the remaining distance can be easily made navigable.

If the Matchedash Bay route is adopted, the canal from Toronto to the Holland, and the improvement of that river, would be the same as in the last mentioned route.

The navigation of Lake Simcoe would be available for its entire length, requiring the dredging of  $\frac{1}{2}$  of a mile at the Narrows; a canal of 9 miles should be made at the north-eastern end of Lake Couchiching, to connect with the North River; and that stream should be improved for the remaining seven miles to its entrance into Matchedash Bay; this river is now navigable, with 5 feet water, over a soft bottom, for 4 miles of that distance, and is, in many places, 12 or 14 feet deep. From its entrance to the mouth of Matchedash bay there is an easy channel with not less than  $6\frac{1}{2}$  feet water, except just at the mouth of Coldwater River, where a loose deposit, about 200 yards wide, has been formed by the silt brought down by the latter stream; there is only  $4\frac{1}{2}$ \* feet water on this bar. The distance from the North River, through Matchedash Bay to Sturgeon Bay, is 5 miles, part of which would require to be deepened, and a few boulders removed. In Sturgeon Bay we have deep water, good anchorage, and shelter from every wind.

My object in thus briefly describing the two routes is not for the purpose of instituting comparisons between them, but to supply, as far as my personal knowledge of the localities enables me, a few of their leading features for the information of the Board, and it must be borne in mind that the engineers are in no way responsible for any of my statements, as they are made entirely on knowledge derived from personal examination. The ultimate decision on either or any route must be made upon full professional reports of the relative costs and advantages of all the routes which may be examined. My object is to shew that the country possesses the chief characteristics upon which the practicability of such a work depends.

The proposed canal across the Isthmus of Suez, to admit vessels drawing twenty-six feet of water, would probably have been commenced ere this, if it were not for the impossibility of constructing a harbour at the

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\* These depths are from soundings made by the writer last Summer.

only point on the shore of the Mediteranean where the canal could enter that sea ; on this point our canal is perfectly safe, as the harbour of Toronto is unrivalled on the lakes, and there is no difficulty with regard to finding harbourage on Lake Huron.

The question of an abundant supply of head water, is one of the very greatest importance in connection with a canal of this magnitude. A hill can be cut through or locked over, and the difficulty in either case is a measurable quantity, but if the head water is absent, or not easily procurable, it is often impossible to arrive at a definite estimate of the cost; and unless the supply can be made ample, canal works of this magnitude are of course impracticable. Lake Simcoe embraces an area of about 500 square miles, with a coast of 108 miles, the depth varies considerably, and it is on the whole safe to estimate it at an average depth of 35 feet. The Severn which now empties the surplus water of this lake into Lake Huron, is a broad, deep and rapid river, and carries a much greater volume of water, than would be supposed from its appearance on the map. I explored this river from Lake Simcoe to Lake Huron last June, and although I was led to expect a large river, yet the depth, volume and rapidity of the current far exceeded my expectations. I was not able to make any thing like an accurate measurement of its size or volume, but comparing it with other rivers, I arrived at the conclusion, that the Severn carries a volume of water equal to fully twice the size of any river in Great Britain or Ireland, and not far short of the size of the Hudson in the neighbourhood of Albany. It is therefore certain that Lake Simcoe can furnish abundant water for all the requirements of the canal, including almost unlimited water power, and an abundant supply for the use of the city, without disturbing to any considerable extent the general water level of that lake, or interfering with the water privileges dependent upon it for their supplies.

In the absence of detailed specifications, the only way in which we can arrive at even approximate opinions as to the probable cost of the work is by comparison with the cost of existing works of a similar nature. The Caledonian Canal, the largest ship canal in existence, is  $23\frac{1}{2}$  miles long and has 23 locks, each 170 feet long, 40 feet wide, and 15 feet deep ; the width of this canal at the bottom is 50 feet, and its cost was one million sterling.

The cut from Toronto to Holland River which embodies the bulk of the work of the Georgian Bay project is 28 miles long, and requires 34

locks of  $13\frac{1}{2}$  feet deep, 300 feet long, and 75 feet wide ; if we except the extra cutting at the ridges, which must be estimated separately, and take into account the much more difficult character of the ground through which the Caledonian Canal runs, I think we will not be far from the truth if we estimate the cost of our work as compared with the Caledonian in the following manner :—

Caledonian Canal, 23 miles and 23 locks.....	£1,000,000
23 miles of the Toronto and Lake Simcoe Canal, with cutting, and locks of nearly double the size, but much easier ground to cut.....	£1,500,000
Add for remaining locks, five miles of canal, and improvement of Holland River....	£500,000
Add for extra cutting at the ridges.....	£1,500,000
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Toronto to Lake Simcoe .....	£3,500,000

Having reached Lake Simcoe the great difficulty is overcome, and I am inclined to think that one million sterling may be amply sufficient to cover the cost of the remaining work and all contingent expenses. The cost of the Welland Canal, including the expense of enlarging the locks, and all outlay up to the last return is one million and a-half currency, so that for a rough estimate I believe we are quite safe in considering that the Georgian Bay and Toronto navigation can be opened under five millions sterling. I must repeat that my conclusions are not given with any pretension to accuracy, and are just as likely to be far over the mark as otherwise.

When we consider that rock cutting, of which the Caledonia work is chiefly composed, is fully four times as expensive as clay cutting, and that the Caledonia has 345 feet of lockage, against 469 on the Toronto and Lake Simcoe, my estimate appears more than ample to cover the difference in the extent of the two works.

With regard to the advantages which would follow the construction of the proposed canal, it is necessary to a full comprehension of the importance of this work, that a perfect recognition of the geographical position of Toronto, in relation to the vast producing regions of the west and north on the one side, and to the great shipping ports of the Atlantic on the other, should be vividly before the mind ; this can be immediately produced by reference to the map. It is also necessary that a conception should be formed of the present amount, character and course of the trade between these points, and an approximate estimate of its probable increase and requirements.



In approaching the latter branch of the subject, I must at the outset, confess my utter inability to deal with it in a manner at all commensurate with its importance; I can only furnish to the Board such limited statistics as I have been able to throw hastily together, from the very inadequate means and time at my disposal, and I must refrain from drawing any inferences as to increase, knowing that the progress of the trade of the western lakes, and the growth of the western cities have gone on annually, outstripping the wildest dreams of their most sanguine estimators; and that calculations based upon the progress of preceding years have uniformly fallen far short of the reality. After reviewing the resources of the country north and west of the lakes, Mr. Adams in his report to Congress in 1852, says, (p. 244)—“This is a brief and rapid outline of a country and a system of waters strangely adapted by the hand of Providence to become the channel of an inland navigation, unequalled and incomparable the world over: through regions the richest of the whole earth in productions of all kinds—productions of the field, productions of the forest, productions of the waters, productions of the bowels of the earth—regions overflowing with cereal and animal wealth, abounding in the most truly valuable, if not the most precious metals, lead, iron, copper, coal—beyond the most favored countries of the globe; regions which would, but for these waters, have been as inaccessible as the steppes of Tartary or Siberia, and the value of the productions whereof must have been swallowed up in the expense of their transportation.”

The trade of the West may, for consideration in connection with this subject, be divided into two great branches; the one composed of the trade which takes its rise in that portion of the Michigan Peninsula lying to the south of a parallel of latitude drawn through Port Sarnia, (Canadian territory) across St. Clair River, westerly, until it meets the shore of Lake Michigan, then south-westerly to the production of a line drawn west from Cleveland to meet it. The districts embraced within this boundary, may be said to be fairly tributary to the ports on Lake Erie; it includes the timber trade of St. Clair, the lumber and produce trade of the Canadian shores of Lake Erie, and the whole of the water-borne trade of Southern Michigan and Northern New York, Pennsylvania and Ohio. Such portions of this trade as now seek the seaboard by water, are carried over the Erie and Welland Canals. The portion which passed through the Welland in 1854, up and down, was 943,000 tons; and it is a fact well established, and very generally known, that the

Welland Canal is not capable of passing with that certainty and dispatch which the requirements of modern trade render necessary, any more or even as large an amount of tonnage as passed through it in that year. It is well known that the canal has of late been so crowded and over-worked that a very large share of the trade which would otherwise have come through the St. Lawrence, has been diverted into other channels by the uncertainty and delays attending the passage of the Welland Canal.

The other branch of the western trade is that which has for the field of its origin the whole of the vast country lying north and west of the line of imaginary demarcation which is noted in red upon the accompanying map, commencing at Chicago (itself the centre of almost incalculable traffic); this division embraces the whole of Lake Michigan, Illinois, Minnesota, Lake Superior with its mining districts, Lake Huron, with its inexhaustible wealth of fish and timber, and every emigrant of the thousands who are daily seeking homes in the far west adds to its resources and requirements.

My principal object in making this division of the trade, is to meet the objections of those who may suppose that the Georgian Bay Canal would enter into injurious competition with the Welland Canal, and therefore be inadvisable on national grounds, but it will be at once admitted by any one conversant with the country, that the trade comprised within the first division above alluded to is far more than sufficient for the capabilities of the Welland, and will before many years imperatively call for duplicate locks and increased depth of water in that work.

The bulk of the trade from Lake Michigan to Buffalo, is carried in a class of sailing and steam vessels of too large a size to pass through the locks of the Welland. Mr. Jarvis in his report to the Canadian Government on the prospects of the Caughnawaga Canal, gives a table of 48 propellers employed (1853) in the trade between Buffalo and Chicago, of which only eleven are small enough to pass through the locks of the Welland.

There need be no apprehension then that the Georgian Bay Canal would operate injuriously upon the trade of the Welland Canal.

With regard to the nature of the trade upon which our canal would depend I cannot do better than to quote from the remarks of one of the Chicago Delegates at the Convention of September. Mr. Bross shows that the territory which would be tributary to the Georgian Bay Canal, is more

than equal to the territory of thirteen older states of the American Union in extent of country, fertility of soil, salubrity of climate, and that this territory is rich beyond computation in mineral wealth. "It contains the largest and the richest deposits of lead and copper that are known to exist anywhere upon the globe." This territory is vastly more fertile, and capable of sustaining a population many times larger than all the older states of the Union. There are 700,000 square miles of as fine a country as can be found upon the face of the earth, embraced within this area and beyond the range to which Mr. Bross's remarks were confined, we have the Rocky Mountains with extensive valleys more beautiful than those of Switzerland, and capable of sustaining a population twelve times as large. Mr. Bross concludes by saying :

"And now, Mr. President and gentlemen, with the vast extent, and the endless agricultural and mineral resources of the country west of the lakes before us, what is the commerce of these lakes to be in the next twenty years? It is settling with the most astonishing rapidity. Our railroads are piercing this vast territory. They now reach the Mississippi at Cairo, Alton, Burlington, Rock Island and Dubuque ; and more than a hundred trains a day arrive and depart from Chicago. They will soon be extended through Wisconsin, Minnesota and Iowa—and no one can tell where they will end till they reach the Pacific. If products of the West gathered from only 50,000 square miles, have built up a city of 83,000 people in the short space of eighteen years—for it is only a few months more than that since it was incorporated—who dares to estimate what the next seventy years will accomplish? I once heard Captain Hunuvin, a veteran sailor of our city, who commenced his eventful career on Lake Ontario in 1812, after referring to the growth and the endless prospective value of the products of the West, say that "the great God when he made the mighty West made also the lakes and the mighty St. Lawrence to float its commerce to the ocean ;" and I might as well attempt to lead the boiling current of Niagara to the sea in a hosepipe, as to ship the products of these 700,000 square miles to the ocean by the Erie and the Welland Canals, and all the railroads now or hereafter to be constructed. The West needs the Georgian Bay Canal and every other avenue to the ocean that can possibly be opened."

I am not in possession of any data upon which to form a statistical return of the lake borne trade of the towns and cities lying along the west shore of Lake Michigan, from Chicago northward to Green Bay ; but in estimating the trade of that lake, I think we are quite safe in considering the export and import trade of all these ports, together with the trade of Lake Superior, at least equal to that of Chicago.

The tables and remarks upon the trade of Chicago, from the columns of "*The Weekly Press*" which are appended hereto present an array of

facts well worthy of consideration in connection with our canal project. If we estimate the trade of all the other ports of Lake Michigan, and the mining trade of Lake Superior united, as equal in bulk to the import and export trade of Chicago, we have an aggregate total of 3,217,690 tons of shipping arriving at the various ports on these two lakes in one year. I arrive at these figures by doubling the tonnage of vessels which arrived at Chicago last year.

I think we are quite safe in estimating that, in five years the lake trade will be so increased as to give ample employment to all existing outlets and furnish an amount of tonnage moving up and down on the Georgian Bay Canal, equal to the whole of the present trade. If, in order to be at the safe side in our calculation, we leave out the odd figures, we have three million tons of movement upon which to base our calculations for income. The average toll paid on the Erie Canal is 6 mills per ton per mile; taking the Georgian Bay Canal to be in round numbers, 100 miles from lake to lake we have 60 cents per ton, or 3 cents per 100 lbs. toll for the entire distance, equal to about 2 cents per bushel for grain; this would give a return of four hundred and fifty thousand pounds per annum, equal to the interest at 6 per cent, of seven and one half millions of pounds, currency.

It must be borne in mind that the above rate of toll per mile, though a heavy burden, when multiplied by the length of the Erie Canal, is an exceeding low rate on a work like this, which would render available so great a chain of natural navigation.

The cost of fuel alone, which would be saved to a propeller bound eastward from Mackinaw, by using our route in place of St. Clair flats and Lake Erie, would warrant a toll many times larger, not taking into account the saving of time and advantage of avoiding the risks of Lake Erie. Taking the same average rate per ton per mile as is charged on the Welland Canal, two million tons of property moving up and down on the Georgian Bay Canal would give a revenue £516,666 cy. per annum, or interest at 6 per cent. on over eight millions.

As before stated, I have no reliable data upon which to form even an approximate estimate of the cost of the proposed work, but these figures would evidently warrant an outlay far beyond its possible requirements.

The existence and steadily increasing growth of the trade upon which these calculations are based is a fact beyond question, but it is argued that no canal with such an amount of lockage as this would have, could possibly pass so great a quantity of tonnage. The Erie canal in 1853 carried,

including the local traffic, over two million tons to the sea-board, and if that work, with its very limited comparative capacity was capable of transporting 2,000,000 tons, I do not think it is at all unreasonable to expect that the Georgian Bay Canal, constructed, as it would be, with every modern engineering improvement, and ample capacity for the largest class of lake vessels, should be capable of passing one half as much more.

Reducing it to actual practice I find that, in order to carry 3,000,000 tons (up and down trade included) the canal would have to pass, in all, three thousand vessels of one thousand tons burthen each, and counting 234 working days to the year, we have 120 vessels of that size to pass in 24 hours, or five vessels to be locked through each lock in an hour. The locks would, of course, be either double or built wide enough to pass two vessels of that tonnage together, or a larger number of vessels of a smaller size. A vessel 180 feet long, 35 feet beam and 13 feet hold, built according to the models best suited to the lake trade, would carry 1000 tons on a draft of about 11 feet water, and it is quite possible to have the locks constructed so as to pass two such vessels at one time, if necessary. But even passing one at a time, five vessels in an hour is within the capacity of a well constructed lock; those of the Sault St. Marie Canal are 300 feet long and 75 feet wide, so that there need be no fear on the ground of incapacity in the work to accommodate sufficient trade to insure profitable returns.

#### COMMANDING ADVANTAGES OF THE GEORGIAN BAY CANAL,

*With respect to cost of transportation and consequent beneficial effects upon the interests of the Canadian Canals and shipping ports of the St. Lawrence.*

Independent of the immense advantage (particularly in the transport of grain) of passing the property through from the western shipping port along-side the ocean vessel in an Atlantic harbour, without breaking bulk, an object so desirable in itself, the question of distance tells powerfully in favor of this work, when placed in competition with any of the existing channels of water communication. This branch of the subject is best illustrated by reference to the accompanying skeleton map, and the table of comparative distances marked in the margin. It will be seen that if Quebec is taken as the shipping port, we have an advantage of over six hundred miles in the item of distance alone, equal on the transport of a ton of produce to four dollars at ordinary rates, as compared with the present route by the St. Clair River and Lake Erie. The most important point in this connection, is to show that by the coustruc-

tion of the Georgian Bay Canal, Canada would offer to the western trade a channel to the sea board, possessed of such advantages as would *command the trade*, and make Montreal and Quebec the depots for a large share of commerce, which they would otherwise be no partakers in. The cost of transporting a ton of flour or grain from Chicago to New York, by sailing vessel or propeller to Buffalo, thence by the Erie Canal and Hudson River to New York, may be estimated as follows :—

Average lake freight, Chicago to Buffalo.....	\$4.00
Transshipment at Buffalo, and cooperage.....	0.50
Canal freight, including tolls to Albany.....	6.00
Transshipment at Albany, canal boat to river, barge, and cooperage .....	0.40
River freight to New York .....	1.50
	<hr/>
	\$12.40

At the opening of navigation last year, much higher freights were paid than have been set down in the above estimate ; 25 cents per bushel in some instances was paid from Chicago to Buffalo equal to ten dollars per ton. My estimate is ten cents per bushel, which is a low average.

Now a vessel of 800 tons burden loading at Chicago, could deliver her cargo along side the sea going ship in Montreal, or even in Quebec Harbour, by way of the Georgian Bay and St. Lawrence Canal, in at shorter time, *without breaking bulk*, and make profitable returns to her owners at 40s. cy. per ton, shewing a saving of over \$4 in addition to the immense advantage of an unbroken voyage, which in respect to rolling freight would be in itself sufficient to command a very large share of the trade, even at equal freights.

As the latter route is yet untried, and we have no actual practice upon which to base our estimate of 40s. per ton, it may be well to give the data upon which it is furnished.

A vessel of 800 tons burden, builders measure, adapted to the lake trade, built and furnished in a substantial manner, would cost £3000 cy.,

The interest at ten per cent. on this outlay.. ..	£800	0	0
Sixteen men averaging \$20 per month, 7 months....	560	0	0
One captain \$60, two mates \$30 and \$25.....	201	0	0
Provisions at \$12 per month per man.....	336	0	0
Contingent expenses for the season.....	250	0	0
Insurance on £6000 cy., 5 per cent.....	300	0	0
	<hr/>		

Working expenses for the season including ten per cent. on the cost ..... £2447 0 0

At 40 shillings per ton, her gross earnings, per trip (down freight only) would be £1600.

Taking three trips in the season, (a safe estimate) we  
we have gross earning ..... £4800 0 0

From which must be deducted canal tolls, viz. —

Georgian Bay 2400 tons at 3s. per ton.....£360 0 0

St. Lawrence Canals, the same..... 360 0 0

Towage through from Lake Huron to Lake  
Ontario ..... 50 0 0

Towage on St. Lawrence (not always neces-  
sary)..... 60 0 0

Towage, Montreal to Quebec (not always  
necessary)..... 75 0 0

£905 0 0

Nett earning for the season.....£3905 0 0

From which deduct working expenses..... 2447 0 0

And we have a margin of.....£1458 0 0

to cover contingencies and deteriorations in value of the vessel, and also the benefit of whatever up freight may be got for profit to the owner; I think therefore that 40s. per ton may be set down as a very liberal estimate of the cost of transporting produce by the Georgian Bay and improved St. Lawrence Canals from Chicago to Quebec, and that it allows fully as great, if not a much greater margin for close competition and reduction of freight, than the sum set down as the cost by the Erie Canal to New York.

An argument has been advanced in favour of the construction of this canal, and the deepening of the St. Lawrence navigation, which (knowing it to be unsound) I wish to put aside at the outset, it is that vessels may be constructed so as to carry their cargoes through from Chicago or other inland ports to Europe. This idea must be abandoned at once as untenable, and arming the oponents of the improvement with a powerful argument, if the claims of the work to public favor were made upon any such untenable grounds.

Practice proves that for long sea voyages, the most profitable vessels are those from 1200 to 2000 tons burden, drawing 18 to 26 feet water, they require to be coppered and copper fastened, expensively rigged and fitted, and are altogether different from, and far more costly than the vessels best adapted to lake and canal trade. The rig is different, every thing in short connected with the two trades is quite distinct, and neither at all applicable to the uses of the other; twelve feet is the deepest

draught which can be profitably used on the lakes, and even that draught requires the deepening of several harbours; let the promoters of the improvement of our inland navigation abandon the idea then, that ocean ships can ever profitably be employed in the trade between inland and foreign ports, and adhere to established practice, which gives such overwhelming advantages to the route which can alone offer unbroken transport in the best paying class of vessels from the far west to the ocean.

The Hon. John Young, member for Montreal, and the Hon. Hamilton Merritt, member for the County of Welland, seem from their speeches in Parliament on the 20th inst., to be fully alive to the importance of completing the public works of Canada; Mr. Merritt says:—

We have our minds filled with the idea of railroads. What can they do? Carry a few hundred thousand tons of freight. But cast your eye over our Western country, embracing five hundred thousand square miles, and consider the advantage which would accrue from the production of this great country. The St. Lawrence is by far the shortest route for a passage from the west to England. Through this channel of transit freight can be carried from England to Chicago *via* St. Lawrence, cheaper than by New York or any other route. Have we the trade of the West? No, not even of Western Canada. Is it not lamentable that flour can be carried from the lakes cheaper by New York than by the St. Lawrence. What is the remedy for it? It is to complete the public works. The government should be subject to the reproach of the people, that so slight an obstruction as the removal of three bars in the St. Lawrence, in order to render the navigation perfect to Quebec, should have been so long delayed. The importance of the proposed Champlain Canal is evident. It is objected to in a financial point of view. But consider for a moment a parallel case. It is known that the Erie canal has been enlarged, and the toll on flour is now 22 cents per barrel. This canal has not only paid the interest on the capital, but also yearly put into a sinking fund \$1,850,000, for the payment of the capital. They have a constitution which the Legislature cannot repeal. When this canal is paid for in all there will be no necessity for tolls, and it can then afford to carry flour to Albany at a toll  $2\frac{1}{2}$  cents per barrel, and, perhaps, take it free of expense. What we should do is to divert the trade from this great thoroughfare to modes of transit through our own country. Now contrast this Erie Canal with our own canals. Not only do our canals not pay anything into a sinking fund, but they do not even pay the interest on their debt. The St. Lawrence canal does not pay its expenses. When we ask for money, the reply is, we are in debt. Yet gentlemen should consider, when raising this cry, whether the proposed use of the money will entail a debt. If it pays its own way, it is no debt. The obstructions in the St. Lawrence and the construction of the Champlain Canal, demands the serious and immediate attention of the Government.

The Hon. Mr. Young said—he would glance at the present condi-



tion and future prospects of the trade of Canada, and they would see what evidence there was of the importance of these subjects. Previous to 1847 the whole of the trade of Canada, and of a large portion of the Western States, was forced through the St. Lawrence. Upper Canada could then neither export her produce nor bring in her imports by the United States. A change was then made in the imperial policy, and they were enabled to send their produce through the United States in bond, and to bring their imports in the same manner. The canals were finished in 1849, and a cargo of wheat admitted through them from the Western States and ground in Montreal; but the gross receipts did not enable them to compete in this operation with the United States. The whole course of this trade has now completely changed by the effect of reciprocity, which has not only enabled the American producer to send his produce through in bond, but opens the markets of the United States for consumption as well as for export. Let them look at the results of this. The receipts of the season at the port of Montreal were of flour 443,000 bbls., of wheat 634,000 bushels, making, with other grain, a total amount of 3,424,000 bushels, but of this amount only 341,000 bushels were exported; the whole of the remainder was taken for food by the people of Lower Canada. When they looked at the fact, that property could be moved from any port on Lake Ontario to New York at the same rate as from Montreal to New York, it was evident that the trade must continue to flow through that channel unless superior means of transport were opened. What makes the present state of trade so alarming is the fact that the State of New York is beginning to enlarge her canals to such an extent, that unless some measures are devised for the increase of our means of transportation, we shall not be able to compete with them. The receipts at the port of Montreal had very much decreased of late years; in 1847 they were exactly double what they are now. Since the new crop came in of one million five hundred thousand bushels of wheat, Lower Canada had only received 128,000 bushels—and since the month of July the whole receipts at Montreal have been only two cargoes against 1,500,000 bushels entered at the port of Oswego—and however prosperous trade might be in Upper Canada it was in a very depressed condition in Lower Canada—and he saw no means of remedying the present state of things, but by the promotion of public improvements. He was satisfied that the people of Upper Canada would be better pleased if they could transfer to the St. Lawrence the whole of their produce, and receive all their imports by the same way. The sums given by the people of Upper Canada to American forwarders and to the State of New York, were very great, amounting to one hundred and twenty-five thousand pounds. It were highly important that the great public works of this country should be made available for the purposes of revenue; and that the interest of the £4,000,000 expended on their construction should be saved—and this could be done; it would be well worth the attention of the Government. There was one statement which he would make, and which he thought could be easily proved, and that was, that the 250 miles of railway now in operation, and the

250 more that were in course of construction, could never be made available for carrying such bulky goods as flour and wheat to market, as they could not compete, in point of cheapness, with water communication. Unless other means of transport are found, the trade must go through the lakes to Oswego, and thence through the States to the sea-board. The increase in the trade of the Western States was beyond calculation, and of 34,000,000 bushels, which have moved from west to east in the year 1855, only 3,000,000 have gone by the St. Lawrence. Allusion had been made to the canal from the St. Lawrence to Lake Champlain, and that was one of the remedies which should be adopted. The Welland Canal should also be enlarged for the traffic from the west was increasing so largely that any expenditure by which that trade could be brought to this country ought to be allowed. These works must be undertaken, no matter what expenditure they might entail on the country, for that was the only means by which the trade of the country could be brought back to the St. Lawrence.

I introduce these extracts to show how vitally important to the prosperity of Canada, is the construction of a connecting link between the existing Provincial public works of the St. Lawrence, and the trade of the West, upon the transport of which these works depend for their returns. It is to a certain extent extraordinary that men of enlightened views, such as the gentlemen from whose remarks I have been quoting, should have entirely overlooked the only really practicable and effective means of making the existing works productive, which is afforded by the construction of the Georgian Bay Canal. It is futile to talk of building a canal to connect the St. Lawrence with Lake Champlain, unless you first enable the trade which you want to attract, to reach the St. Lawrence. It is like clearing the tail race of a mill in order to draw down the water which is blocked up at the junction of the feeder and the mill pond. It is also idle to talk of enlarging the Welland Canal, as a measure adequate to the end in view. The Welland Canal is a highly important work; and as before remarked, the trade of Lakes Erie and St. Clair, which properly belong to it, will, undoubtedly, call for its enlargement before long; and there are probably no persons in Canada more fully aware than Messrs. Merritt and Young are of the utter inadequacy of that work, under any practicable system of enlargement, to accommodate or to attract a sufficient portion of the western trade into Canadian channels, to make the St. Lawrence improvements profitable.

The channel of communication which is to effect what may be called a revolution in the course of the western trade, must offer *commanding advantages* in *cost, time, and manner of transport*, in order to induce shippers to use it, and to be effective for the object in view. I maintain that

the Georgian Bay Canal in connection with improved navigation of the St. Lawrence, admitting vessels drawing twelve feet water would possess all the requisites to enable us to defy competition in the carrying trade between Europe and the vast producing regions of the West.

I have previously shewn that freight can be carried at \$4.40 per ton cheaper from Chicago to Quebec by this route than it can under existing circumstances be carried from the same point by the Erie Canal to New York, with the additional advantage of an unbroken voyage.

The same advantages will apply to the voyage from Chicago to New York by our route, as soon as the Caughnawaga Canal is completed with the same depth of water, and the navigation from Lake Champlain to the Hudson correspondingly improved, with this very important addition, that the up freight from New York to the west will help to reduce still lower the comparative cost of transport by the Ship Canals.

It will be urged in objection, that when the contemplated improvements of the Erie Canal are completed that the tolls on that work will be reduced, thereby lessening the cost of transportation; and Mr. Merritt entertains the view that probably in a few years, when the Erie Canal has paid for itself interest and cost, as it is now rapidly doing, that it will not be necessary to charge any tolls on that work, so that produce would pass as through natural navigation, with merely the expense of the means of transport. Let us deduct the toll now chargeable on the Erie Canal from our calculation of the cost of transport on both routes. Mr. Jarvis, in his report to Hon. Mr. Chabot on the Caughnawaga Canal, says, (p. 9,) 6 mills per ton per mile may be taken as the average toll at present chargeable on the Erie Canal; this is equal to \$2.40c, which would have to be deducted from \$12.40c, the present freight on a ton of produce from Chicago to New York, by the Erie Canal, leaving still, however, \$10 against \$8, the cost of the transport by our route, from Chicago to Quebec. It is therefore plain and indisputable that, even admitting the opponents of the Georgian Bay Canal, all the advantage of carrying property over the Erie Canal, entirely free of toll (a consumation which is at least problematical,) the Canadian route, with this link completed, would still be able to compete on advantageous terms with that or any route which can be found.

In years when the prices of grain and the other staple products of the West rule high, and the item of freight bears but a small proportion to the value in the European or Atlantic ports of consumption, a difference of \$2 per ton in the cost of transportation to the sea-board may not

be very sensibly felt, nor would it be sufficient to produce a complete revolution in the course of an established trade, but let the price of wheat come down to 30s. a quarter in England, and other grains be reduced in proportion, and I am satisfied that the port which could put the grain on board the ocean ship \$2 per ton lower than any other port, *must command the trade*, taking it for granted that her merchants shew themselves equal to the position which their locality would give them, and that her facilities for ocean transport are not inferior to those of her competitors.

In the preceding sections I have endeavored to present the project in its Canadian or national aspect, and to illustrate the beneficial effects which would follow its construction upon the existing public works, and ocean shipping ports of the Province. The financial prospects of the work as an investment of capital have also been imperfectly commented on.

The practicability of the work is proved by the engineers' opinions previously quoted, and I have given such illustrations of the leading characteristics of the country, as my personal observations enabled me to furnish.

The advisability of the work, in a military point of view, no one can dispute, as it would insure to Great Britain the control of an uninterrupted chain of water communication from the ocean to Lake Huron, for vessels of deep draft, within her own territory; and if at any time it should unfortunately happen that the amicable relations which have so long and so beneficially existed between the two countries should be interrupted, the command of Lake Huron would be a powerful engine to preserve peace in the first instance, and failing this, if war should eventuate, the control of that lake would be of immense importance to both or either party.

It presents, in this point of view, also, an immense advantage over any far inland route, inasmuch as war vessels, while employed in the transport of troops, would also be enabled to act as powerful protectors of the Canadian borders and Canadian trade on the St. Lawrence and Lake Ontario.

It remains to consider the project in its local aspect, and its effect upon the progress of Toronto and the Counties of York, Ontario, Peel, and Simcoe. As regards the city its effects would undoubtedly be highly beneficial. Many persons conversant with the operation of improvements of a similar nature to this, upon the towns which form their termini, and who, from their acquaintance with the trade which this Canal

would command, are competent to judge, have expressed the opinion that the Georgian Bay Canal, if completed as proposed, would, within ten years from the time of its completion, make Toronto a city second only on the American continent to such cities as New York, Boston, Philadelphia, and New Orleans, in population, wealth and commerce. Independent of this general view, the direct practical effects of the work are well worthy of consideration. According to the result of the examination so far, the canal, if constructed, will enter the bay either at the Queen's Wharf, or through the valley of the Don; in either case there will be a channel, with an abundant supply of water, carried along from west to east, on the high ground, immediately in rear of the city, so as to afford unlimited water power, with ample fall for milling and manufacturing purposes, as well as for the supply of the inhabitants, and extinguishment of fires. This branch of the subject has, however, been so ably handled in Mr. Hartman's speech in the County Council (see page 25 ante) that it is quite unnecessary for me to enlarge upon it.

As regards the counties, I believe there is but one opinion among the farmers and land owners, who are interested in their improvement, as to the immensely beneficial effect which the construction of the Georgian Bay Canal would have upon their prosperity and progress.

Independent of the enormous traffic which would flow through this channel "enriching as it went," the canal would afford almost unlimited water power at various points along the line. Mills with every modern improvement would rapidly spring up along its banks, and in place of sending our wheat in the shape of raw material to be ground with the wheat of the western prairies at Rochester and Oswego, as is now so largely practised, to the serious prejudice of all tradesmen connected with the manufacture of flour in Canada, we would ourselves become the importers of the western grain, it would be ground on our own soil with the produce of our own counties. The country between Toronto and Lake Huron would become the great grain and provision depot of America and consequently of the world.

Our own architects and artizans would build these mills, our own millwrights would fit them up, our forests would furnish the timber, our coopers would convert it into barrels, and in brief all the advantages which the manufacture of a staple article (not subject to disadvantages of more elaborate manufactures of fabrics) would follow the construction of the proposed canal.

I fear that my communication will be considered too lengthy, but the

importance of the subject must be my apology, and when I assure you that I have only touched upon a very few of the advantageous aspects in which the project may be viewed, the council will readily excuse the length of my report.

I have the honor to be, Sir,

Your very obedient servant,

M. P. HAYES,

*Secretary to the Committee of the Toronto and Georgian Bay Canal*

J. W. BRENT, Esq.,

*Secretary Toronto Board of Trade.*

## TABLES OF THE TRADE OF CHICAGO.

The appended table shows the shipments of Flour from this port by lake, for a series of years :—

### SHIPMENTS OF FLOUR BY LAKE FOR TWELVE YEARS.

YEAR.	BBLs.	YEAR.	BBLs.
1844.....	6,320	1850.....	100,871
1845.....	13,752	1851.....	72,407
1846.....	28,045	1852.....	61,196
1847.....	32,538	1853.....	70,884
1848.....	45,200	1854.....	58,573
1859.....	51,300	1855.....	77,082

### SHIPMENTS OF FLOUR FOR THREE YEARS.

	1853.	1854.	1855.
By Lake.....bbls.	70,980	58,573	77,082
“ Canal.....	1,107	520	372
“ Galena Railroad.....	445	3,394	2,825
“ Mich. S. “.....	661	27,361	31,335
“ Mich. C. “.....		15,476	51,041
“ Rock. Is. “.....	....	457	604
“ Ill. Cent. “.....	988	1,726	....
“ Ill. & Wis. “.....	....	96	160
“ C. & Miss. “.....	....	10	....
City consumption and balance on hand.....	56,940	116,045	156,893
Total .....	131,120	224,575	320,312

### LEAD.

Our receipts of Lead have the last year more than doubled. This is a natural consequence of the completion of the Galena and Illinois Central Railroads, leading directly to the mineral districts, and was fully anticipated in our last annual report. The principal receipts are, as to be expected, by those two routes :

### RECEIPTS OF LEAD FOR THREE YEARS.

	1853.	1854.	1855.
By Lake, lbs.....	108,150	140,000	.....
“ Canal.....	1,206,607	35,463	1,250
“ Galena Railroad.....	1,759,000	4,051,346	6,071,653
“ Rock Island “.....	.....	14,455	.....
“ Illinois Central Railroad.....	.....	.....	.....
“ Chicago & Mississippi Rail Road.....	.....	5,864	.....
Total .....	3,253,763	4,247,128	9,965,950

## SHIPMENTS OF LEAD FOR THREE YEARS.

	1853.	1854.	1855.
By Lake, lbs., .....	3,100,990	2,591,033	3,117,840
" Michigan Southern Rail Road.....	151,650	127,015	22,120
" Michigan Central " .....		.....	.....
" Rock Island " .....		1,810	.....
" Illinois Central " .....		85	.....
" Consumed and on hand .....	1,123	1,527,185	6,825,990
Total .....	3,253,763	4,247,128	9,995,950

## TOTAL RECEIPTS OF LEAD FOR FOUR YEARS.

1852.	1853.	1854.	1855.
1,357,327	3,253,763	4,247,128	9,965,950

## STEAM AND SAIL TONNAGE.

The steam and sail tonnage passing the St. Clair Flats during the season of navigation may be put down at 2,000,000 tons. There are now laid up in winter quarters in the harbor of Chicago, 6 steamers, 13 propellers, 5 steam tow-boats, 24 barques, 25 brigs, and 160 schooners—total, 233, the value of which is not much, if any less than \$2,000,000. The following table shows the number and tonnage of vessels arriving each month, for the season of 1855:

## NUMBER AND TONNAGE OF VESSELS ARRIVING AT THE PORT OF CHICAGO DURING THE SEASON OF 1855.

Months.	Steamers.	Propellers.	Barques.	Brigs.	Schooners.	Sloops.	Total.	Tonnage.
March .....	20				8	6	34	12387
April .....	44	10		10	214	4	282	76059
May .....	68	38	19	61	459	7	652	150750
June .....	54	63	23	62	499	6	707	167090
July .....	42	47	29	85	594	2	799	170189
August .....	53	60	28	95	588	5	820	196758
September .....	49	56	27	63	480	2	677	170422
October .....	48	60	23	62	551	1	745	181354
November .....	40	36	22	53	408	1	560	142872
December .....	16	11	6	14	77	1	125	39164
Total .....	434	381	177	505	3878	35	5418	1316045
Arrivals unreported .....							1200	292800
							6610	1708845
Total in 1854 .....							5021	1092644
Increase in 1855 .....							1589	516201

It is estimated by those well qualified to judge, that there have been at least 1,200 arrivals during the season not reported at the Custom House. If to the number given in the above table these be added, we have a total of 6,610 vessels arrived, with an aggregate of 1,608,845 tons burthen.

## WHEAT.

Within a very few years the wheat crop of the Western States has increased to an almost incredible extent. Upon this and kindred matters, the late U. S. Government returns afford but a slender criterion upon which to judge of the present production. The wheat crop of the State of Illinois for 1849, which it is well known was less than an average, is given by the U. S. Census returns at 9,414,575 bushels. The crop of 1855 is without doubt double that of 1849. From most reliable returns in our possession, the estimate of the crop of the State, as published in this paper a few days since, is placed at 20,000,000 bushels, and this estimate is believed to be under rather than over the actual yield. No better evidence of the increase of the crop of the State, and what is true of this State is, in a less degree perhaps, true of other Western States, than the receipts at this point for the last few years. In 1852 the total receipts of wheat at this place were less than 1,000,000 bushels. In 1854 it was thought to be a wonderful increase when they had swelled to 3,038,955 bushels; and so indeed it was. But what shall be said now when the figures for the last year give us a total receipt of 7,535,097 bushels, and a shipment of 6,298,155 bushels—an amount exceeding that of any other port in the world.

## CORN.

The Corn crop of the State of Illinois is a theme of no meagre proportions. There is no country in the world which, in promise, can begin to equal it. In comparison Ancient Egypt descends to a subordinate position, and Pharaoh's elevators would find their match to handle half of it. Upon all other productions of the State there seems to be some little use in estimates, but when we come to corn, figures appear to be dismayed. The corn crop of 1854, from which the supply of the last year has been received was almost a failure, owing to excessive drouth, and the common expression of the country in speaking of the crop was to the effect, that there was "no corn." So general was this expression that at the date of our last yearly review, considerable doubt existed as to the possibility of the receipts of 1855 equalling those of the previous year. A comparison however of the receipts of the two seasons shows that so far from decreasing, those of the last year exceed those of the previous one by over one million of bushels. The crop of 1855 is the largest ever before raised in the State, and from this the supply of the coming season is to be derived. We may therefore confidently predict such a surplus of corn for the next twelve months, as has rarely if ever before been collected at any one point in the universe. Here are the figures for the last four years.

## RECEIPTS OF CORN FOR FOUR YEARS.

	1852.	1853.	1854.	1855.
By Lake, bush.....	.....	....	1,808	
" Canal.....	1,810,830	2,481,334	4,396,995	3,701,441
" Galena R. R.....	671,961	228,505	2,038,743	3,761,619
" Mich. S. R. R.				
" Mich. C. R. R.....	....	1,823	328	8,918
" Rock Is. R. R.....	....	17,862	564,757	350,123
" Ill. Cent. R. R.....	....	3,595	229,566	472,654
" Ill. & Wis. R. R.....	....	....	57,574	37,622
" C. & Miss. R. R.....	....	....	1,892	
" Teams .....	508,220	136,220	200,000	200,000
Total.....	2,901,011	2,869,339	7,490,753	8,532,377



The Lake continues to be of course the principal route by which Corn is forwarded from this place. The accompanying table will show the disposition made of Corn for three years past :

## SHIPMENTS OF CORN FOR THREE YEARS.

	1853.	1854.	1855.
By Lake, bush.....	2,739,552	6,626,054	7,439,259
" Canal.....	.....	1,725	.....
" Galena Railroad.....	.....	13,305	.....
" Mich. Southern R. R.....	.....	12,812	4,189
" Mich. Central R. R.....	40,676	184,003	74,177
Ground at City Mills.....	.....	18,500	30,370
Used by Distillers.....	81,000	100,000	200,000
On hand, consumed and unaccounted for.....	8,111	534,354	784,382
Total.....	2,869,339	7,490,753	8,532,377

## SHIPMENTS OF WHEAT FOR FOUR YEARS.

	1852.	1853.	1854.	1855.
By Lake, bush.....	635,196	1,206,163	1,650,489	5,719,168
" Canal.....	807	1,618	863	59,880
" Galena R. R.....	.....	.....	3,358	.....
" Mich. S. R. R.....	} .....	102,267	125,127	176,543
" Mich. C. R. R.....			325,978	342,288
" Rock Island R. R.....	.....	.....	248	286
" Ill. Cent. R. R.....	.....	.....	44	.....
" C. & Miss. R. R.....	.....	.....	820	.....
Floured by C. Mills.....	288,493	372,748	330,000	398,250
Used by distillers.....	13,000	3,000	.....	.....
Shipped, consumed, on hand, and unaccounted for .....	.....	.....	402,230	838,692
Total.....	937,496	1,685,796	3,038,955	7,535,097

The shipments of Wheat by Lake from this port for a series of years commencing with 1842, are as follows:—

## SHIPMENTS BY LAKE OF WHEAT FOR FOURTEEN YEARS.

YEARS.	BUSH.	YEARS.	BUSH.
1842.....	586,907	1849.....	1,936,264
1843.....	688,967	1850.....	883,644
1844.....	891,894	1851.....	437,660
1845.....	926,860	1852.....	635,496
1846.....	1,459,594	1853.....	1,206,163
1847.....	1,974,304	1854.....	1,250,489
1848.....	2,170,800	1855.....	5,719,168

## EXPORTS OF THE PRINCIPAL GRAIN PORTS OF THE WORLD COMPARED WITH CHICAGO.

Odessa.....	5,600,000	.....	1,440,000	7,040,000
Galatz & Ibrella ..	2,400,000	5,600,000	320,000	8,320,000
Dantzic.....	3,080,000	.....	1,328,000	4,408,000.
St. Petersburg.....	.....	all kinds	.....	7,200,000
Archangel.....	.....	" .....	.....	9,528,000
Riga.....	.....	" .....	.....	5,000,000
Chicago, (1854)....	2,644,860	6,837,899	3,419,551	12,902,310
Chicago, (1855)....	7,715,250	7,517,625	2,000,238	16,933,813

## HOGS.

Number received in the four packing months of 1853.....	138,515
Weight in lbs.....	25,778,879

## LUMBER.

	FEET.
Boards and Scantling.....	306,000,000
Laths.....	46,000,000
Shingles.....	17,000,000

## BEEF.

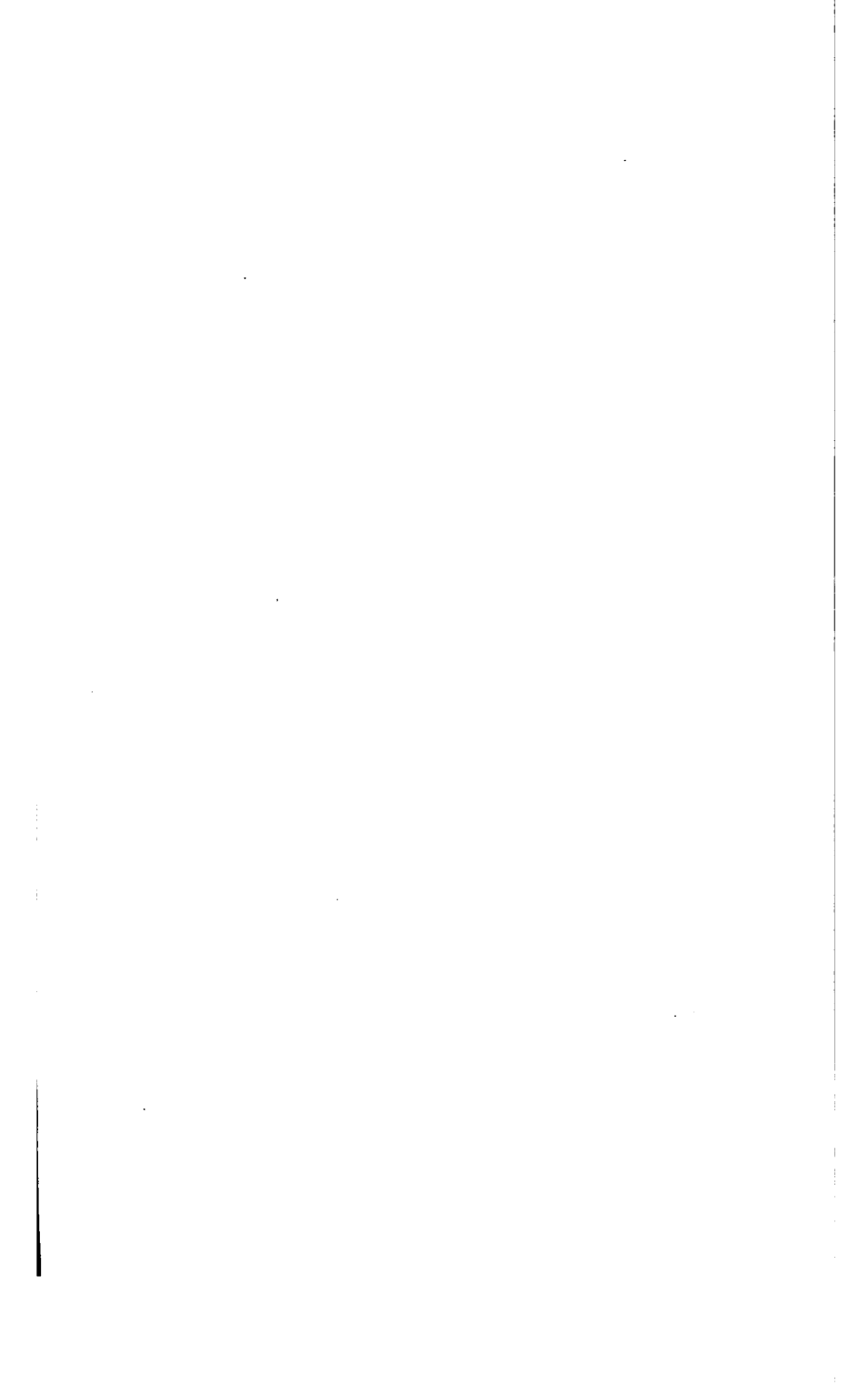
The value of the Beef packed for the last four seasons compared with the present is for,

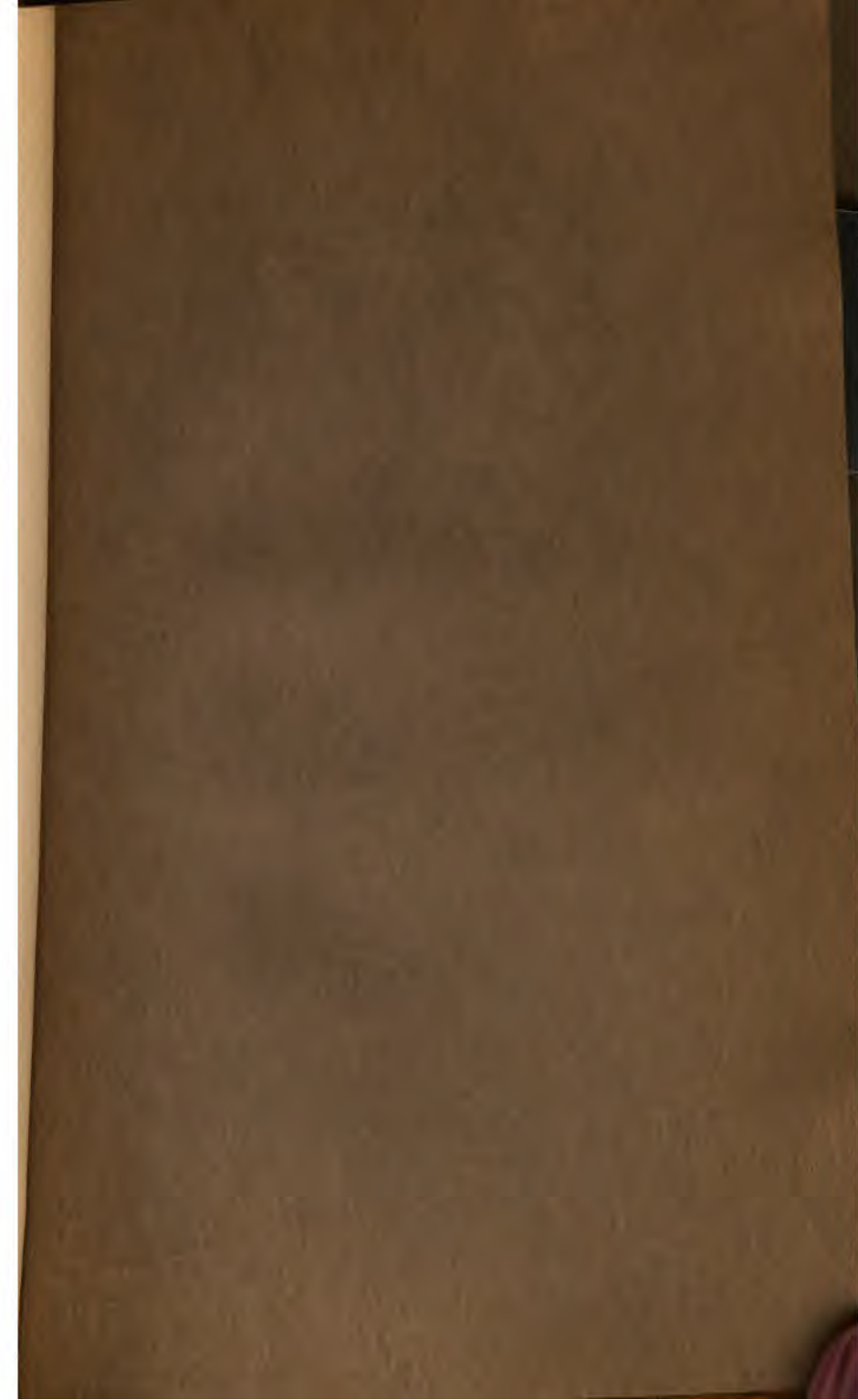
1852.....	\$650,621,000
1853.....	865,949,850
1854.....	,865,779,110
1855.....	1 152,420,860

## GENERAL SUMMARY.

Total number of miles of railroad centering in Chicago Feb. 16th 52	40
Total number of miles now completed and in operation.....	2,993
Increase in four years, or more than 600 miles per year.....	2,893
Total number of miles projected to be completed in from five to eight years.....	6,449
Total number of miles of railroad in operation in the State of Illinois Feb. 16th, 1852, four years ago.....	95
Total number of miles now in operation.....	2,410
Increase in the State in four years.....	2,315
The total earnings of all the railroads (40 miles) leading in to the city during the year 1855, say.....	\$40,000
Total earnings of the roads leading into the city for the year 1855.	\$13,298,201,090
Increase in four years <i>thirteen and a quarter millions of dollars</i> .....	13,258,301,090
Total number of trains arriving and departing now (mid winter) daily, 96. Add 12 to 20 per cent. when the Spring business opens and the number will be about.....	110
Number of points at which the Chicago railroads reach the Mississippi.....	8
Population of Chicago in 1852.....	33,783
Population of Chicago in 1855, or nearly 150 per cent. in three years.....	81,509
Total receipts of grain at Chicago for the year 1854.....bushels	15,804,423
Total receipts of grain for 1855. Increase about 33 per cent. bush.	20,487,953
Total shipments of grain from the port of Chicago for the year 1855.....bushels	16,633,813
Total number of hogs handled in Chicago for 1854-5.....	138,515
Total value of the beef packed in Chicago in 1855.....	\$1,152,420,960
Receipts of lumber at the port of Chicago for 1855.....feet	326,553,467
Now laid up in the port of Chicago, Steamboats, Propellers, Sail Vessels, &c.....	233
Total number of vessels arriving in Chicago during the last year..	6,110
The total tonnage of vessels arriving in this port for 1855.....tons	1,608,845
Amount of duties received on foreign goods at the Chicago Custom House.....	\$296,844,750
Total amount of capital invested in manufactures during the year 1855; showing \$2,075,000 increase over the present year.....	\$6,295,000
Total number of men employed in manufacturing (increase in 55 3,7000.....	8,740
Total value of manufactured articles, (increase in 1855 \$3,161,491).....	\$ 11,031,491
Total amount expended in improvements, stores, dwellings, hotels, &c., (increase in 1855, \$1,296,844).....	\$3,735,254







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